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AWARDS

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Enterprise Innovation From Core to Edge C Publication 201

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Fresh Insights New Trends Great Ideas

Headsup



RENEWABLE ENERGY

Iceland Taps Magma as Energy Source

created the world's first magma-powered geothermal energy system after drilling niles through the Earth's crust.

This is only the second time that any drilling operation has broken through to magma, the group said.

The borehole is located in Krafla, in northeast Iceland, near a volcanic crater. The hole created a shaft with high-pressure, superheated steam that could power a nearby electrical plant, according to the project leaders.

"The available power was sufficient to generate up to 36 megawatts of electricity, compared to the installed electrical capacity of 60 megawatts in the Krafla power plant," the group said.

Once the team reached molten magma, the bottom of the borehole was lined with a

steel casing, creating a shaft of high-pressure steam that exceeded 842 degrees Fahrenheit. The project broke a world record for geothermal heat and power.

The group said the steam from the IDDP-1 well, as it's called, could be fed directly into the power plant at Krafla.

While this is not the first borehole to reach the planet's magma, it is the first to harness pants said the mantle's heat to produce steam that could power an electric plant.

The hole had to be closed after a few months because of a valve failure, but the team said the project demonstrated the potential of using magma as an energy source. There will be an attempt to reopen the borehole in the coming years.

- Lucas Mearian

WEB APPS

New App Tells You When Other Apps Follow You

Researchers have developed an Android app to help people better understand when their location is being tracked, something that happens more often than many think.

Android phones display a flashing GPS icon when apps are trying to access the user's location. But few people notice the icon or understand what it's telling them, according to the research team, which was led by Janne Lindqvist, an assistant professor of electrical and computer engineering at Rutgers University. "People don't pay attention to these default disclosures." Lindqvist said via email.

To fix that, Lindqvist's team developed an app they're calling the RutgersPrivacyApp, which is designed to make it clearer to users when other apps are accessing their location data. There's no obvious way in Android for an app to monitor whether other apps are accessing location data, the researchers said, but they found a way to exploit the Android Location API as a workaround.

The team tested the app with a small group at Rutgers, and participants said they were surprised by

some of the apps that accessed their location.

Research from

Carnegie Mellon University has shown that seemingly harmless apps like Angry Birds and Dictionary.com track users' locations and device IDs.

- ZACH MINERS, IDG NEWS SERVICE

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HEADS UP

BETWEEN THE LINES

By John Klossner



IT INDUSTRY

Google, Samsung Get Closer After Sale

OOGLE AND SAMSUNG have grown closer following Google's sale of Motorola Mobility to Lenovo. The two companies have entered into a 10-year global patent cross-licensing agreement, and they seem to be ready to work together on initiatives relating to smartphones, tablets, wearable systems and emerging technologies.

Google, developer of the Android operating system, and Samsung, the largest maker of Android devices, likely "realized that they should stick to what they are good at and work together," said Carolina Milanesi, an analyst at Kantar Worldpanel.

Google's decision to shed its Motorola division should relieve Samsung and other device makers of any concerns they may have had that Google would play favorites and share Android innovations with Motorola before doing so with other handset manufacturers.

With the bad mojo behind them, "we believe that Samsung will tweak Android less, reducing the focus on the Samsung apps and services in future iterations of Galaxy smartphones," said Jack Narcotta, an analyst at Technology Business Research.

Samsung made several changes to its Android mobile devices to differentiate them from Google's and Motorola's. These changes included replacing the Google Chrome browser with Samsung's default Internet browser and using Samsung's ChatOn instead of Google Hangouts, Narcotta said.

Overall, Google and Samsung will now be better equipped to compete with Apple and Microsoft, said Patrick Moorhead, an analyst at Moor Insights & Strategy.

Google is motivated to promote versions of Android with few alterations. According to research firm ABI, 25% of the 221.5 million Android smartphones shipped in the fourth quarter featured modified versions of Android that don't support Google services or work with Android apps in the Google Play store.

- Matt Hamblen

Micro Burst

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IT CAREERS

Intel Execs See Sharp Cuts in Perks and Pay

The total compensation packages of Intel executives fell sharply in 2013 as a result of changes in the way the chip maker pays senior employees.

Nowhere was this more apparent than at the very top of Intel's executive ranks.

Brian Krzanich, the company's recently appointed CEO, was paid a base salary of \$887,500 in 2013. A year earlier, Krzanich's predecessor, Paul Otellini, received \$1.2 million.

Krzanich's compensation package also included a \$1.8 million bonus and \$6.3 million in Intel stock - for a total of \$9.1 million. Last year, he received \$15.7 million from Intel, the majority of which came in stock.

The total compensation for President Renee James dropped from \$15.2 million to \$7.7 million.

Both Krzanich and James are "driving a cultural shift" at the company and the adjusted compensation levels are part of that, Intel said in a regulatory filing.

Under the new formula, base salary makes up roughly 10% of the total compensation of Intel's top 350 executives and senior engineers. The remainder is in the form of an annual bonus, worth about 24% of the total, and Intel stock worth about 65% of the total.

> MARTYN WILLIAMS. IDG NEWS SERVICE



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NEWS ANALYSIS



HP Faces Resistance at NASA in IT Overhaul

An inspector general's report blames both the space agency and the contractor for problems plaguing a \$2.5 billion IT centralization project. By Patrick Thibodeau

ASA'S INSPECTOR GENERAL has blamed both the space agency and contractor Hewlett-Packard for messing up a sweeping plan to centralize management of NASA's end-user computing systems.

NASA's IT managers, perhaps egged on by the agency's scientists and engineers, are resisting some changes stipulated in a four-year, \$2.5 billion deal awarded to HP in 2011. The contract calls for HP to consolidate personal computing hardware, mobile IT services, assorted peripherals and all enduser services needed to support NASA's 60,000 users.

Worker resistance is but one of several problems cited in a 17-page report by NASA inspector general Paul Martin, who spreads blame around for delays in the project.

Martin didn't suggest that the project is a boondoggle — yet. Instead, his report is likely meant as a wake-up call for all involved. "We will continue working together to ensure the success of the project," said an HP spokeswoman.

The report says some curious incidents have taken place during the project.

At one point, subcontractors installing new equipment walked off their jobs after NASA users turned them away. HP officials told the IG that about 40% of the planned equipment refreshes were denied at the Goddard Space Flight Center, a NASA research lab in Greenbelt, Md. NASA IT managers said users declined to accept the new equipment either because they hadn't ordered it or because it didn't meet the agency's needs.

Martin acknowledged in the report that the project represents a radical change for NASA, which has long managed its IT "across a decentralized and disparate IT environment led by a management culture largely resistant to such change."

Each of NASA's 10 centers has its own CIO and IT staff, and the agencywide CIO "has limited visibility and control over a majority of NASA's approximately \$1.5 billion in annual IT investments," Martin noted, adding that "it is not surprising that a move to an enterprise model encountered resistance."

Ray Bjorklund, an analyst at BirchGrove Consulting, said he suspects that many NASA scientists and engineers "probably want to hang onto their own IT infrastructure, and are not feeling they can trust support being handled by shared services."

The contract awarded in the spring of

2011 charged HP with replacing the agency's laptops and desktops with new HP systems within six months. That goal wasn't met.

NASA officials blamed the contractor's lack of understanding of the NASA IT environment. HP said the agency's IT managers didn't have the hardware specs or complete inventory ready.

The refresh is now due to be completed in April.

The delays caused one interesting complication, the report notes.

The contract required the new systems to have encryption software, something that most existing equipment lacked. The theft of an unencrypted laptop in October 2012 "prompted NASA IT officials to devote significant time and money to expediting the deployment of encryption software," according to the report.

In the end, NASA paid HP an additional \$220,500 to undertake the "hurried" encryption effort — a task and expense that would have been unnecessary if the contract schedule had been met. •



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NEWS ANALYSIS

Gates Shifts to Pivotal New Post at Microsoft

After 39 years in the role, Microsoft's founder is stepping down as chairman to help the new CEO steer the company into the future. By Gregg Keizer

ICROSOFT CO-FOUNDER Bill Gates has stepped down as chairman of the board to be an adviser to new CEO Satya Nadella — a historic move for the tech industry. "This is a milestone, an indication of not only a changing of the guard in Microsoft, but also a change in the technology business between the past and the future," said

Patrick Moorhead, an analyst at Moor Insights & Strategy.

"The past means software on PCs, the future is about mobile devices where most of the processing is happening in the cloud, and where the client moves to online app stores," Moorhead said.

Microsoft announced Gates' new post as technology adviser at the same time it introduced insider Nadella as its third chief executive, replacing the retiring Steve Ballmer.

Nadella, 46, a 22-year Microsoft veteran, had been executive vice president of Microsoft's cloud and enterprise group.

Gates will remain on Microsoft's board. The new chairman is former Symantec CEO and IBM executive John W. Thompson, who led Microsoft's CEO search committee. Gates, 58, had been Microsoft's only chairman since its birth 39 years ago.

Gates isn't returning to Microsoft full time, but is significantly increasing his involvement.

Early in the CEO hunt, some pundits called for Gates to return to the post, a suggestion Gates repeatedly spurned. Two weeks before Nadella was hired, Gates said his primary focus would remain on his philanthropic work with the Bill & Melinda Gates Foundation.

At the same time, some of Microsoft's biggest investors had reportedly called on the board to boot Gates from the chairman's spot amid worries that he would prevent the company from making the drastic changes they believed were necessary.

However it came to be, Gates' departure from the chairmanship was inevitable. The iconic figure from tech's past has been selling his shares of Microsoft stock for years. At his current pace, Gates will cede his title as the company's biggest shareholder to Ballmer before June.

Gates' new role isn't completely clear, including how important his opinions will be.

At this point in his career, it would be unfair to expect Gates to act as a visionary who can read the tea leaves and unequivocally point Microsoft in the right direction, said Jack Gold, an analyst at J.Gold Associates.

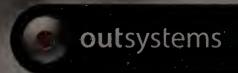
But Gates could be an effective spokesman for the company, he said. "Microsoft needs a better voice," Gold said. "You want someone to be out in front promoting your positions, and he can do that very well with customers, partners and, very important, with Wall Street."

"Gates will be Nadella's consigliere," Moorhead said. "He'll be Nadella's advice guy. But Thompson

Forrester Research analyst James Staten said that Gates could prove valuable to Nadella — but just in the short term.

If Gates is still in the role a year from now, that would be a red flag, Staten said. Gates would prefer to spend all of his time at his foundation, so a longer stint would mean Nadella was struggling. "If Gates can't leave [his new role] in a year," said Staten, "then the CEO pick was wrong." •

Juan Carlos Perez of the IDG News Service contributed to this story.



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Make sure your business processes and IT systems adhere to new FCC regulations on robocalls.

N THEIR CONTINUAL DRIVE to engage consumers, marketers barrage people with unwanted texts and phone calls. More often than not, that steams those who get autodialed on their home phones and infuriates people who get such calls on their cellphones. Jon Leibowitz,

chairman of the Federal Trade Commission, has called the robotic "Rachel from cardholder services" public enemy No. 1.

Now, responding to consumer complaints, the Federal Communications Commission has modified telemarketing regulations to better align with FTC rules for prerecorded marketing calls. If your company uses telemarketing to reach consumers, you'll want to make sure your business processes and IT systems adhere to the new regulations. Failing to do so could cost you. For a company that makes prerecorded marketing calls to consumers without explicit permission, the statutory damages are now \$500 to \$1,500 per text or call. Noncompliant marketing campaigns could rack up millions in fines.

Marketers must now obtain "prior express written consent" from each person that they contact via residential landline or cellphone with prerecorded messages or autodialed texts. This rule, effective since Oct. 16, 2013, eliminates the exception for "established business relationships" that allowed telemarketing messages to existing customers and others who provided their phone numbers. Strictly informational robocalls and texts (school closings, notifications of potentially fraudulent banking activity, etc.) are still OK.

How do you acquire the necessary permissions? First, realize that "prior consent" means permission must be granted before the first call or automated text message. The permission-granting document must include a "clear and conspicuous disclosure" that the signatory will receive advertising from the named company.

Signatures may be obtained on paper, but it is more common to follow the provisions of the E-Sign Act and collect electronic consents. E-signatures can be received through texts, websites or social media. All signatures must conform to federal law or state contract law.

Beware: Consent to contact people is not transferable among a company's multiple brands. In other words, Diageo might get someone's permission to contact him with information about Johnnie Walker, but it would need a separate consent from the same individual to contact him about Smirnoff.

Companies will also have to take steps to allow consumers to easily opt out of unwanted communications. People should be able to opt out of receiving texts by responding with "stop" or "end." And robocalls should include an "opt-out" menu option at the beginning of each call that can be accessed throughout the call. Once a consumer selects that option, the call should be terminated, and he should receive no future calls.

But you should consider offering multiple levels of opting in or opting out, which allow for more closely targeted marketing campaigns. Consumers are more willing to provide personal information if they expect to receive communications that are truly relevant to them, so tailoring several layers can be worth the extra effort.

All this will likely require changes to websites, databases and robocall menu options. In addition, IT systems must track permission status and changes, forwarding timely notifications to corporate databases. Allocate resources now! •

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Reaching IT leader status (and staying there) requires something akin to a personal mini-revolution every two to three years, according to these 100 men and women. They all have transformed their careers, and remapped their career paths, many times over. And they'll do it again.

more coverage of IT leadership, including:

The Premier 100 Honor Roll: A sortable list of all Premier 100 IT Leader honorees from 2000 to 2014.



The IT Leader's Revitalization Guide: Read the best of Computerworld's management and career articles.

A call for nominations: Do you know an exceptional IT leader? Nominate that person for next year's awards.

A REINVENTION CONVENTION

15TH ANNUAL AWARDS

These 100 men and women have reset their career paths many times over on their way to the top. Who needs a comfort zone?

BY JULIA KING

OHN MARCANTE, managing director and CIO at Vanguard, says he knew virtually nothing about computer hardware when his CEO informed him he was being reassigned from a role he loved to a new job heading up the data center.

"He said 'You're the right gay You'll

"He said, 'You're the right guy. You'll learn," says Marcante, who was leading an application development group at the time of his transfer. As it turned out, his accomplishments in the new job included overseeing the largest operating budget at the mutual funds company, while doubling its production infrastructure and cutting costs.

The first time Jim Stalder, CTO at Cook Children's Health Care System in Fort Worth, Texas, set foot inside a hospital was for a CIO interview at a large medical center in downtown Baltimore. Previously, he was working as a busi-



PREMIER 100

ness and product strategist for a successful Internet startup.

Stalder got the job. "But I have to say, it was very awkward on my first day," he says. "I had just come from a high-flying dot-com that had a successful IPO to healthcare IT, where the offices were literally in the basement next to the morgue."

David Behen, CIO for the state of Michigan, had a degree in history and Soviet studies when he moved from Washington, D.C., to the Kalamazoo area to take a municipal manager's job so he could be near his future wife. From there, he got his foot in the

door of the county government in Ann Arbor and then moved through a series of positions in facilities operations, planning, environmental management and IT.

"I learned a lot of lessons in that period," Behen says. "One is never to turn away a good opportunity. I was asked to do a lot of different things and I didn't have the background to do some of them, but I had mentors — people who had been there and done that and who could guide me. They said, 'You can do it."

Fearless Career Flight

Stories like these are common among the 2014 class of *Computerworld* Premier 100 IT Leaders. Every few years, most of these IT and business standouts have taken on new and often radically different challenges on their way to leadership

roles. Not one has relied on a proscribed career map or corporate organizational chart to plot his or her course. Instead, leaps toward learning, a commitment to mastering relationships, and trust in influential and experienced mentors have been key drivers on their leadership journeys.

"Sometimes, it's about trusting other people," Marcante says. "I went and immersed myself in infrastructure and networks, and we doubled our production infrastructure and lowered operating costs in three years." After that, he went on to lead Vanguard's Six Sigma program, then moved again to manage

Vanguard's high-net-worth business before moving back to IT.

"Never say no to an opportunity because you feel scared or under-ready or not ready. Take the leap, because you're going to learn a tremendous amount," says Marcante. "It's a personal philosophy that I try to pass on to other people."

Doreen Griffith, CIO at Securities America, built her career in big leaps. She started out as an intensive care nurse with "no inclination of going into business, let alone technology," she recalls. But after working as a nurse for a while, she discovered she

wanted something different. She moved to the retail industry and from there to telecommunications and consulting. "I wasn't afraid to change companies and get out of my comfort zone. I learned very quickly that no job would be too difficult if I just take it one bite at a time and move on. That's how I've taken my entire career," she says.

Mike Macrie, CIO at Land O'Lakes, a member-owned agricultural cooperative based in Shoreview, Minn., calculates that he has so far reinvented himself three times — from a technologist to a project leader, then to a big-picture thinker and from there to a relationship-builder.

"There's no linear career path" to a leadership role, Macrie says. "You've got to be adaptable. One day you're working on cost-cutting and budgets, the next day

you're working on a major acquisition and the day after that, an innovative new product that will change your industry."

Along the way, one of his biggest lessons learned is that "it's not about being right," Macrie says. "It's about working with others to get the best solution for your company or project and influencing people to get to the right outcome."

At the beginning of his career, Macrie says, "I was a bit of a perfectionist. That created internal frustration. What I learned is that if you can get 90% of the value of a project and you move the business forward, that's a huge impact. There's always another



ROSA AKHTARKHAVARI, CIO, CITY OF ORLANDO, FLA.

Premier 100 Snapshots

DATA COLLECTED FROM JULY THROUGH OCTOBER 2013.

PEOPLE

PLOPLE	
Average size of IT staff:	1,081
Average number of IT kemployaes for which each honorea is responsible:	420
werage number of contract IT workers used to upplement the IT staff:	94

PARTNERS

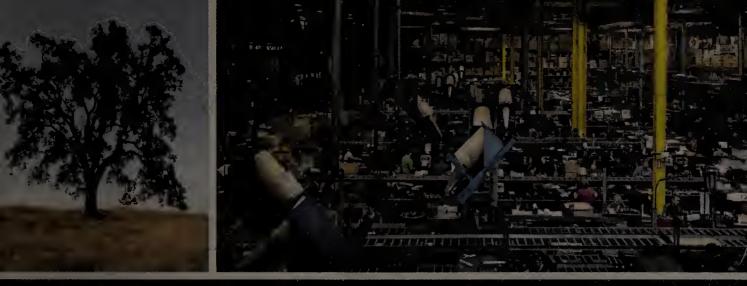
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4	IBM
5	Dell

PROJECTS

The Premier 100 IT Leaders are making these projects their top five priorities in 2014:

1	Data management/business analytics
2	Mobile, including management, security, tablets and app stores
3	Application development, including ERP and CRM
4	Cloud computing, including public, paivate and hybrid cloud letaps
5	Security, including virus protection, identity management, single sign ion, friew illustration diversity.





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LIVING OUTSIDE THE ROX

Having always loved numbers, Cynthia Stoddard, CIO at Net-App, decided to study accounting in college and assumed she'd pursue a career in finance or perhaps become a tax attorney.

But her instincts told her that understanding computers would be important, so after college she took a job as a programmer trainee at an insurance company. She found that she liked technology, but what she liked even more, she says, was "engaging with the business and being able to make a noticeable impact on business processes.

"I don't believe it's about a reinvention strategy as much as a personal career relationship strategy. I always look for opportunities to advance, and I volunteer for new things and explore projects beyond the normal scope," Stoddard says.

"I always push myself out of my comfort zone," she adds. "To make that work, I built all kinds of relationships along the way so my peers, managers and leaders had an understanding of what interested and motivated me."

- JULIA KING

opportunity to go after the other 10%."

It's a strategy that's alive and well at Land O'Lakes, where Macrie and his IT team recently developed and launched new products designed to help growers optimize the production of corn and soybeans using a combination of data and mobile, GPS and satellite imaging technology.

"It's a great story of how IT can reinvent itself as a revenuegenerator," Macrie says. So far, "we have two or three products and have a pipeline of 10 more," he adds.

Jeffrey Johnson, assistant director at the FBI, says he has always learned the most from taking "uncomfortable and nontraditional steps" in his career. Over the years, Johnson has reinvented himself at least a half-dozen times. As a U.S. Naval officer, he moved from

specializing in surface warfare to IT and then to IT security. After he left the Navy, he took an executive role in the manufacturing industry. "What I've always looked for is where I can have the largest impact and where can I apply creative engineering techniques to solve some of the hardest problems," he says.

Shirin Hamid, CTO at the United Nations Development Programme, started her career at Deloitte Consulting and worked across several industries, including finance, manufacturing and the public sector, before joining the U.N. The reinventions were "a tremendous and fascinating growth period for me," she says. "I saw the whole life cycle of IT and IT's business value across different business sectors. It gave me an idea of how technology can work across different functions and industries."

Do the Next Right Thing

Rosa Akhtarkhavari started as a programmer and application developer and zigzagged through multiple roles and agencies within the city government of Orlando, Fla., before becoming CIO. She worked as an architect and project manager as well as an information security specialist and manager of the city's geographic information system (GIS) on projects ranging from police and fire dispatch systems to permit processing systems.

"I moved to an area, I tried to reshape it and stabilize it and then move to a different opportunity," she says of her career thus far.

"I never looked at career advancement when I was selected for a role," she says. "I just do what I think is right for the satisfaction of getting it done right. But every role and task I was assigned did impact my career," she says. For example, working on financial systems helped her understand finance and budgets. Working as an architect taught her how to strategize and look at the big picture. As a project manager, she learned about time management, resource management and understanding how to assess the trade-off between risk and value, she says.

All of these reinventions have made her a stronger leader, thanks to the business knowledge and relationships that came with them

"I can sit with law enforcement professionals and understand their acronyms, and I know more than I need to know about wastewater treatment," she jokes. "If you don't know what your

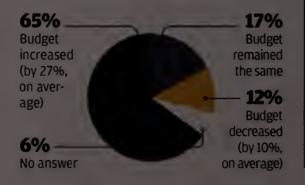
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What is your organization's total IT budget for the next 12 months?	
Greater than \$1.5 billion	5%
\$500 million to \$1.5 billion	16%
\$100 railion to \$499.9 million	27%
\$50 million to \$99.9 million	11%
\$10 million to \$49.9 million	24%
Less than \$10 million	17%
RESE OF RESPONDENTS	

BUDGETS CONTINUE TO RISE

The percentage of 2014 honorees who said their IT budgets had increased in the previous 12 months (65%) was equal to the percentage of 2013 honorees who reported an increase.



UPTICK IN HIRING

The percentage of honorees who said their staffs had expanded in the previous 12 months rose significantly: 60% of the 2014 honorees added staffers, compared with just 28% of the 2013 honorees.



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businesses do, you can't connect all of the dots. I'll never be a public safety, fire, police or solid-waste expert, but I do know what's important for their businesses," she says.

Sven Gerjets, senior vice president of IT at DirecTV in El Segundo, Calif., considers "a very strong business lens" the absolute most important nontechnical skill an IT leader must possess in today's world. "You almost have to have empathy for what each business organization is trying to do," he says.

By way of example, Gerjets notes that he knows not only the sales numbers for DirecTV's e-commerce site, but also who gets paid for each sale. "If sales are going down and it's a technical issue, I'd better know it. We are there to run a business. It just happens to be the technical aspect of that business," he says.

Reinventing Failure

Gerjets' primary focus over the past year has been reinventing the conventional definition of failure and developing new ways that IT can learn from its failures as a means to more quickly and fearlessly innovate for the business.

"We had to make failure less contentious and make it something that we can celebrate when we learn from it," Gerjets says. To this end, IT rolled out the F12 program, a platform for sharing project information and a "failure vault" through which managers can search for information on previous failures and use the data to build more accurate risk assessments and plans.

"Failure is a big word for a lot of people. Now we have a method to work through failures," he says. "Our ability to deliver has also increased significantly. We increased our output by about 30% this year."

Two other critical leadership skills to be gained in relation to reinvention are a mastery of relationships and, perhaps most important, the ability to conceptualize and communicate a vision for your team, department, organization and the enterprise as a whole. To acquire both skills, it helps if you like — no, love change and actively pursue change opportunities.

"For me, it's a personal preference. I love change. So does my wife," says Tony Saldanha, general manager of global business services at Procter & Gamble in Cincinnati.

"We lived in Japan, and our kids were born there," he says. "My approach to living in a different culture is that it's a great learning experience. My approach to my career is the same. I want to move across experiences. If I've done infrastructure for three years, I want to do something outward-facing. I always go with an open mind."

Over the course of his career at P&G, Saldanha has worked in six countries and in functions ranging from procurement to infrastructure. "Over a period of time, you end up being able to blend those experiences, which is an asset in senior leadership."

Similarly, Genentech CIO Cindy Elkins says she "loves being on an incredibly high learning curve." Changing industries played right into that love.

One of Elkins' biggest career leaps occurred when she moved from an executive position at Ariba, a high-tech company, to her current CIO role in the biotech industry.

"I didn't grow up with a science background, but what I loved about biotech was that IT was an equal partner in helping scientists help patients every day," Elkins says. By contrast, "in technology companies, IT can be viewed a little like a secondclass citizen," she says.

Still, Elkins — like so many of this year's Premier 100 honorees — had a firm nudge out of her comfort zone by a mentor in HR. "She said I should get out of high-tech. She told me she believed in me," Elkins recalls. With that, her next reinvention was underway and she hasn't looked back. Elkins expects to reinvent herself again and again, but she can't pinpoint precisely when and where those new opportunities will present themselves.

"When people see those of us in these types of leadership positions, they think we had it all mapped out and it's all an upward climb," Elkins says. "In fact, it's more like rock climbing or a jungle gym, but you can only see this in retrospect." •

Moving from a technical project management role to a client-facing account wrenching changes in Sukumar Rajagopal's professional life.

"I lost over 10 pounds and was almost Cognizant's CIO and head of innovation.

three more times, but minus the slimming side effects.

support of his wife, joined Toastmasters and, last but not least, figured out how to "Transformative change management is

Discussion Undervay

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TOM AMRHEIN

An industry slowdown brings an opportunity to create efficiencies and refine strategy.

IN THE CHALLENGING ECONOMIC ENVIRONMENT that the construction industry faced over the past five years, Tom Amrhein, CIO at Rockville, Md.-based Forrester Construction, put his focus on reducing costs, driving value and seizing opportunities.

"I look for the chance to make a difference. It's really about helping our team to get the jobs done as efficiently as possible," says the 43-year-old executive, who left Forrester Construction on Dec. 31.

To do this, Amrhein says he started using virtual construction technology, moving to the cloud and deploying other businessenabling tools.

Case in point: He deployed custom-built software for the company's estimating group, which provides actual dollar quotes to owners.

Working with the company's founder and the estimating group, the IT staff focused on the functions that could make the team more efficient. Amrhein says he decided to develop the estimating software in-house when he couldn't find any commercial products that would meet Forrester's needs.

Although he can't discuss actual costs, Amrhein says the project will pay for itself within 27 months. By reducing time spent on nonstrategic tasks by 35%, the company is bidding on 10% more projects with the same number of estimators.

Senior IT manager Eric Impraim says such projects show how Amrhein uses IT to drive business growth. "[Amrhein] carefully applies the technology that brings value to the business," says Impraim. •

> - MARY K. PRATT, A COMPUTERWORLD CONTRIBUTING WRITER (MARYKPRATT@VERIZON.NET)

PREMIER IT LEADERS 2014

Rajesh Aggarwa

Secretary of IT. Government of Maharashtra, Mumbai, India



A recent example of your leadership style: I led a committee to rec-

ommend technology-driven reforms in the university examination system. I took this opportunity to lead from the front, held innumerable and continuous consultation sessions and workshops in towns across the state with various stakeholders, and came up with the final report within two months. The complete recommendation was accepted by the state government and is now implemented.

Joan Albeck

CTO and senior vice president, IT infrastructure and security, Scottrade Financial Services, St. Louis



How are you turning your IT department into a services

organization? We have taken a deep dive into service delivery management (Information Technology Infrastructure Library). This includes implementing rollout strategies, routine communication mechanisms and meeting regularly with key stakeholders to build relationships, understand issues, and then put processes and procedures in place to mitigate those issues.

Rosa B. **Akhtarkhavari**

CIO. City of Orlando. Orlando, Fla.



A recent great deal from a vendor: When the city was targeted by

[the hacker group] Anonymous, we worked with our vendor partners to ensure the security and sustainability of the city's operations. At the recommendation and referral of the Department of Homeland Security, we worked with Akamai to implement a Web content caching system in three days.

A career highlight: Serving on the executive IT board for the Baha'i World Centre in Israel.

Shankar Arumugavelu

Senior vice president and CIO, Verizon Wireless, Basking Ridge, N.J.



Skills you'll hire for this year: With the explosive growth in big data, Verizon

Wireless is looking to hire data scientists.

Coolest current project:

The Omni Channel program provides a consistent experience for customers across all channels. This program leverages data analytics to provide suggestions and options tailored to a customer's usage and purchasing behavior. Verizon Wireless Destination and Smart Stores are part of this initiative.

Michael Barnas

Applications and development director, UKMEA, U.S. and Asia-Pacific regions, Dentons, Chicago



New titles in your IT organization: We've added a global CIO

who ensures that we're employing global standards and strategies effectively.

How many times have you had to reinvent yourself in your career? I can't count how many times, especially in recent years. One of the most recent has been my need to understand both standards and work cultures around the world to help manage the changes we've introduced.

Rickey Burks

Senior vice president, chief technology and innovation officer, USAA, San Antonio



Boldest IT prediction:
Advanced analytics, big data and artificial

intelligence will drive successful enterprises to move from traditional "resource management" to a more holistic "force that accomplishes work" including both people and technology.

How do you evaluate emerging technologies?

USAA's lines of business, IT and support resources align to implement and pilot new capabilities in one of our eight in-house labs, where prototypes are evaluated.

David Behen

CIO, Michigan Department of Technology, Management and Budget, Lansing, Mich.



How many times have you had to reinvent yourself in your

career? Reinvention is a CIO constant. In the mid-2000s, the industry focus shifted from maintaining technology to becoming a leader, manager and coach. I needed to become a true business leader — someone who could truly inspire the IT team and partners to accomplish things that they didn't think were possible. I transformed myself into a leader and more than just a technologist.

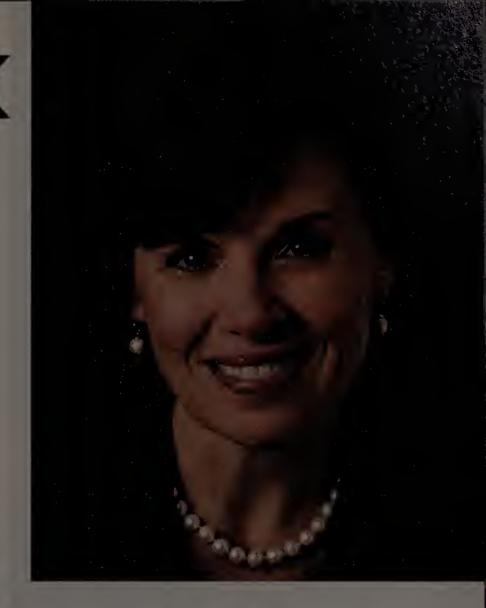
Scott Carl

Vice president and CIO, Parsons Corp., Pasadena, Calif.



How have you incorporated social media into your own work?

Communication is critical for meeting business growth and expansion objectives. I use our social business collaboration platform to blog key messages across the company — to our public groups for collaboration on technology services, and within our private groups for leadership collaboration. In addition, I've created social media work processes that shape technology ideas into productive solutions.



KAREN AUSTIN

A retail mindset helps this CIO create better processes for the utilities business.

BEFORE KAREN AUSTIN REACHED HER CURRENT POSITION as CIO at Pacific Gas and Electric, her career road map included stops in the CIO suites at Sears and Kmart. That's why, she says, she brings a strong retail focus to the utility's IT operations.

"I spend 80% to 90% of my time focused on the business and looking at how we can optimize processes," she says. One of Austin's first decisions after joining PG&E was to undertake a reorganization that involved hiring CIOs dedicated to every major line of business in order "to make sure we're building strategic road maps." She wanted to bring in IT leaders who were deeply knowledgeable about the business processes they were transforming.

Austin, 53, also likes to get out in the field to see how employees are using technology. A day in the field shadowing staffers who look for gas leaks led to the development of a tablet app that makes capturing data easier. Austin also approved an initiative to create a standardized format for smart-meter data so customers and app developers can download and analyze the data. Leveraging mobile for the PG&E workforce and its customers is a big goal, she says. Most recently, the IT team launched a mobile app that lets customers monitor usage, make payments and perform other functions.

"Karen is the most decisive leader I've worked for," says Brian Rich, vice president of business technology. "She is consumed by delivering business value" − so much so that PG&E recently asked her to take charge of enterprise change management across the entire organization. ◆

- ROBERT L. MITCHELL



RONALDS. CHANDLE

No 'pocket-protector geek,' this school district CIO strives to be an agent of change.

"I CONSIDER MYSELF a frustrated end user trapped in an engineer's body," says Ronaid S. Chandier, CIO of the Los Angeies Unified School District. "I'm always wondering: Why was this designed this way?"

After working as an avionics engineer for more than four years, Chandler, 52, says he realized he didn't want to be "a pocket-protector geek; I wanted to manage large systems." That insight led him to business school and stints at consulting firms, where he advised CIOs.

From there, it was an easy decision to work for the Los Angeles schools. "The work we're doing here is akin to that in any Fortune 500 company," Chandler says. The second-largest school district in the country, LA Unified is upgrading its SAP software, developing a new student information system and installing 40,000 iPads, among other tech projects.

Chandler says CIO jobs have a natural rhythm. "You can overstay your welcome," he explains. "The nature of this job is to be a change agent. The organization needs to soak the change in, and then there comes a point where it can't take any more transformation and what you've come to do is done."

Chandler hasn't yet reached that point in his current job. Indeed, he's dedicated to the task at hand, according to LA Unified board member Monica Garcia, who says, "He has a commitment to children and schools that resonates in his leadership style." •

- JOHANNA AMBROSIO

PREMIER IT LEADERS 2014

Curtis A. Carver Jr.

Vice chancelior and CIO, **Board of Regents of the University System of** Georgia, Atlanta



A career highlight: While working at West Point, I .served as a

mentor for emerging young leaders. Although I retired from the Army a number of years ago, I've maintained a close bond with my former mentees.

Quick ROI project: Our deployment of a learning management system as software as a service dramatically lowered costs, runs flawlessly and transformed how we educate and inspire our students.

Pablo Ciano

CIO, DHL Express. Piantation, Fla.



Boldest IT prediction: More CIOs will become CEOs. How are

you building an IT department for the future? By hiring people who are smarter than me, and bringing in people with the ability to build and manage digital platforms (process, people and software).

To what extent do you embed IT workers in business units? I have a program called Face to Face where each IT employee chooses to spend 10 full days shadowing employees in other departments.

Kumar Chatani

Senior vice president and CIO, Mount Sinai Health System, New York



What's one iob responsibility you'd like to eliminate? Print fleet

management. This commodity function doesn't provide a competitive advantage for our organization and could be outsourced, possibly providing an improved service with reduced costs.

Skills you'll hire for this year: This year, I will hire additional resources in the areas of big data, Epic electronic medical records software and health information exchange technology.

James B. Cole

Senior vice president and CIO, First National Bank of Omaha, Omaha, Neb.



A recent great deal from a vendor: In negotiation with a software

provider, I acknowledged their need to make a profit, told them to reduce their price by \$1 million and we would have a deal. We signed the next day.

Coolest current project: A hackathon. My CISO hates the name but likes the objective.

A recent innovative staff

idea: My security team brought a biometric solution to me that is going to change the way our customer-facing staff members do their jobs.



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NICK COSTIDES

With challenges and opportunities at every turn, a career in IT takes shape.

AT UPS, EMPLOYEES ARE ENCOURAGED to remain "constructively dissatisfied," which means they're always focused on continuous improvement and challenging themselves with a variety of assignments. So it's easy to see how Nick Costides, vice president of information services, could reinvent himself many times at the same company over 22 years - with stints on three continents in IT, business and M&A roles.

Costides, 50, recalls that when he first joined Louisville, Ky.based UPS, he thought it was "just a stop" on his career path. "But each assignment provided a lot of excitement," he says, "and before I knew it, my evolution through UPS had happened."

Two years ago, his breadth of experience helped him lead the launch of My Choice, a service that allows consumers to control their delivery experience on mobile devices. But perhaps more significantly, UPS anticipated the social ramifications of mobile apps and created a team of IT, product, marketing, communication and social media specialists to gather feedback and make changes quickly.

In its first year, the team delivered 26 releases of software, while reacting to customer feedback and supporting new mobile platforms. Today, UPS has more than 6 million My Choice customers and its mobile app has been downloaded more than 4 million times.

Jim Medeiros, vice president of IT shared services, describes Costides as a positive leader. "People want to follow him because he's so energetic and knowledgeable," says Medeiros. "They believe in what he's professing to achieve." •

> - STACY COLLETT, A COMPUTERWORLD CONTRIBUTING WRITER (STCOLLETT@COMCAST.NET)

PREMIER IT LEADERS 2014

Jamie Cutler

Vice president and CIO. **QEP Resources, Denver**



How are vou turning your IT department into a services orga-

nization? I focus my team on acting like a revenuegenerating department. Our goal is to drive efficiency at all levels through our team and the entire company. By acting like a profit-and-loss center, we avoid the mindset of "them" and "us," which I personally dislike. IT employees need to understand their stake in corporate success. Only by taking the same approach as our sales and operations departments do we align well.

Frankie Dueñas

CTO, Cabrillo Credit Union, San Diego



Boldest IT prediction: The payments landscape is changing

rapidly and the credit card will be obsolete in five years. It is, and will continue to be, all about mobile.

How do you evaluate emerging technologies?

In addition to reading industry publications and analyst reports and tapping partner organizations for insights, I conduct peer reviews to identify which emerging technologies other credit unions and financial services organizations are implementing.

Jim Ditmore

Senior vice president, **Allstate Technology & Operations, Infrastructure** Services, Allstate Insurance, Northbrook, Ill.



How are you turning your IT department into a services orga-

nization? We are centralizing infrastructure solution engineering and service management functions. In essence, we are bringing holistic, direct support for sets of applications together to provide better engineering for the entire "business service." It positions us to drive high performance, implement best practices, seize economies of scale and deliver predictable outcomes.

James R. Edmunds

Director of IT. American Infrastructure, Worcester, Pa.



A recent example of your leadership style: I sat with my leadership

team and we went through the details of our mission statement and focused on the basic wording. In the end, I framed our direction, where we are going and the fundamentals that drive us as no more than what's on that mission statement. Then we established a very simple three-step action plan to drive the team to take more ownership of our long-term direction and to think bigger.

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TONY ENCINIAS

A fresh way of thinking helps this CIO trim government costs while improving services.

THE COMMONWEALTH OF PENNSYLVANIA is shedding most of its data centers as it turns to a cloud provider for infrastructure services. And thanks to that initiative, Tony Encinias, CIO of the Governor's Office of Administration, expects to cut costs while delivering better services.

"Our constituents want mobility and ease, and they expect more today - whether it's to get a license, apply for benefits or get information. So we need to be in a position to accommodate that in a more flexible fashion," he says.

Encinias, 48, says his department plans to close seven data centers as it switches to the cloud service over 30 months. He expects savings of about \$200 million over the next 10 years.

In addition, Encinias has other initiatives aimed at simultaneously driving down costs and improving services. Those projects range from developing more mobile apps to examining whether to outsource the enterprise portal platform and implementing a nextgeneration telecommunications system.

"I really look to work with the business units and our vendor partners to make sure we're doing IT that really benefits the business in the best way it can," he says, noting that he regularly communicates that approach to the agency CIOs reporting to him.

Encinias' strategic plan is "visionary," says Kelly Powell Logan, secretary of the Governor's Office of Administration. "Many in government have the tendency to say, 'We've always done this this way,'" she says. "But Tony takes a fresh approach and asks based on his experience, 'How can we do this better and save significant dollars?'" •

PREMIER IT LEADERS

Sashi Edupuganti

Head of application services, Bridgewater Associates, Westport, Conn. (Formerly, director of software solutions, **NBCUniversal**)



How many times have you had to reinvent vourself in vour

career? Mergers and acquisitions coupled with rapid changes in technology. business and career growth have driven innovation and reinvention throughout my career. My approach has been to understand the market opportunity and/or the business goals to evaluate, understand and then design the solution.

Mark A. Farrow

Vice president and CIO, **Hamilton Health Sciences,** Hamilton, Ontario



New titles in your IT organization: We have added a portfolio

manager who acts as airtraffic controller to coordinate work and allocate resources. a crucial function given the increasing interdependency among projects.

A recent example of your leadership style: We procured Epic Ambulatory electronic medical records software, a multimillion-dollar project. I provided my team with strategic direction and encouragement.

Cindy Elkins

Vice president and head of IT Americas, Genentech, South San Francisco, Calif.



How have you incorporated social media into your own work?

Upon joining Genentech, I distributed monthly podcasts so I could connect to the team. in a consistent and authentic way through voice. I'm also the most-followed person in Chatter internally and post regular updates.

How do you evaluate emerging technologies?

Through our Idea Incubator, which allows us to prototype any idea in two to three weeks. With this, IT can stay a step ahead for our patients.

Caroline Faulkner

Senior managing director and CIO. Pramerica Systems Ireland, Letterkenny, **County Donegal, Ireland**



How have you incorporated social media into vour own

work? I create quarterly video updates and blogs for the staff. Our company intranet is used extensively for in-house communication. Video blogs are used to attract potential new hires. We have adopted IBM Lotus Connections as our collaboration community. YouTube, Twitter and Facebook are being used for programs that the company sponsors.

Jim H.C. **Forbes**

CTO, University Health **Network.** Toronto. Ontario



How many times have you had to reinvent yourself in your ca-

reer? Over the past decade. at least four times, specializing at times as an expert in interoperability, enterprise architecture, procurement, policy and the cloud.

What's one job responsibility you'd like to eliminate? Administrative work. When we introduced the Lean approach, I determined that I was spending well over half my time in standing meetings. Lean helped me restructure my day.

Paige Francis

CIO, Fairfield University. Fairfield. Conn.



New titles in your IT organization: We added an application

integration specialist, rebranded our identity and directory service administrator and created a new position of training specialist.

Boldest IT prediction:

I'm still waiting for my debit card to be somehow implanted into my wrist.

How do you evaluate emerging technologies? I involve every level/layer of user to vet the technology. How will this impact the student? How will this impact faculty?



A career steeped in business helps this CIO lead during a time of IT transformation.

AT HIS FIRST JOB, PHILIP GARLAND, 55, built nuclear submarines for General Dynamics. He soon decided it was time for a career transformation, and he entered the public accounting and professional services worlds - where decades of role changes at KPMG and BearingPoint led him to the helm of PwC's U.S. IT operations.

Today, PwC is undergoing a transformation of its own - a global undertaking in which IT serves as a strategic enabler for overhauling the consulting firm's business model and improving the user experience for its employees and clients. Garland leads the charge in the U.S. and sits on the council overseeing the global initiative. "We must stay in tune with technology trends so we meet the expectations of our younger staff," whose average age is under 28, he says. To do that, "our technologies must enable an environment that is social, mobile, agile, analytical, global and simple." he adds.

PwC principal David Stuckey has worked with Garland for 18 years. "Many CIOs are technologists - Phil is a business technologist," Stuckey says. "He understands technology very deeply but can speak to business leaders. He can apply technology to a business problem and transform the business."

Garland joined PwC in 2009 to launch its CIO advisory business. In that capacity, he helped CIOs transform their business and in the process helped redefine the CIO role. He became PwC's CIO in 2012.

Frequent job changes are "typical for me," Garland says. "In the course of my career I don't think I've held a role for more than three or four years. For me that keeps things interesting." ◆

STACY COLLETT

Thomas O. Frahm

Vice president, Chr. Hansen, Hoersholm, Denmark



How many times have vou had to reinvent vourself in your

career? I started out as a cost controller and gradually moved into the enterprise resource planning domain. I have been in charge of business process re-engineering as well as transforming IT functions into more robust organizations capable of handling rapid growth.

Coolest current project: Data analysis in our research and development function. The project could be a gamechanger for the company.

Scott F. Franzel

Vice president of information technologies, OFS Brands, Huntingburg, Ind.



A task you've delegated this year: We restructured our

help desk, placing more of a priority on one-call resolution and task completion. This was delegated to our systems support manager. Structural changes and the use of mobile technology made this a success, evident in our monthly metric review.

Coolest current project: A mobile customer relationship management app to

be made available to our sales team.



P.B. GARRETT

Working closely with students and faculty, this IT leader champions 21st-century learning.

AS ASSOCIATE PROVOST and chief academic technology officer at George Washington University, P.B. Garrett has a keen sense of who her customers are - 10,000 undergraduate and 14,000 graduate students on three campuses in and around Washington, D.C., and the faculty members, administrators and staffers who support them.

With that mission in mind, Garrett says she's most proud of projects that directly enhance the student's experience. On the micro level, one recent example is GW Mobile, an app developed by student interns that offers course details, maps, campus news, emergency alerts, an events calendar, a shuttle bus schedule and more. The interns gained real-world skills programming in Objective-C or Java, and the university was able to deliver a low-cost, student-centric app that gives the community information they truly want on their mobile devices.

On the macro level is the George Washington School of Nursing's new Clinical Skills and Simulation Lab. AV engineers from Garrett's unit designed the lab from the ground up, and Garrett says that made it possible to offer a higher level of service with more technical features at one-third the cost of commercial systems.

"We worked very closely with the dean of the School of Nursing and the faculty to understand their exact requirements," Garrett explains.

By all accounts, the collaboration was a success. "By working with P.B. Garrett's department, we were able to create an effective space that encourages us to be adventurous," says lab director Patricia Davis. "Best of all, I can see the 'aha' in the students' eyes as it all starts to come together for them." .

- TRACY MAYOR

PREMIER

IT LEADERS 2014

Sven W. Gerjets

Senior vice president of IT, DirecTV, Ei Segundo, Calif.



A career highlight: In 2003, I spent two years building an Internet

startup from the ground up. Unfortunately it didn't pan out. That experience has given me a stronger connection to my business partners and a greater appreciation for the critical nature of the functionality we are delivering.

Coolest current project:

The redesign of DirecTV.com. We are creating a responsive Web design, integrating an open technology stack as well as a set of public APIs and a developer community.

Lynn A. Gibson

Vice president and CTO, Christus Health, **Irving, Texas**



How are you turning your IT department into a services orga-

nization? We are redefining our customer-facing staff structure and expectations. This will impact our definition of service levels, requests, incident response and customer notification methods.

A recent innovative staff idea: An instant notification app that can run from an enterprise server to support messages to an Android or Apple platform, which would include phones and tablets as well as desktops.

Sal Giambrone

Senior vice president of architecture and operations, Tickets.com, Costa Mesa, Calif.



A career highlight: Working alongside talented leaders and

creative minds has allowed me to support Tickets.com on its movement to redefine itself as a technology provider. Quick ROI project: Tickets.com operates in an open-system environment, allowing us to develop new technology solutions against our own publicly available APIs. This allows us to avoid re-engineering existing code, delivering widgets to the client in a matter of weeks, not years.

Edward L. Goldman

Intel IT CTO, Intel, Santa Clara, Calif.



How many times have you had to reinvent yourself in your

career? Every three to four years. Not so much a reinvention as an acceptance of a new role or taking on a new capability. That pushes me to develop and provides rich learning opportunities. **Boldest IT prediction:** The

Internet of Things is much more important to the future of business than we recognize. When wearables and edge devices meet the future of BI, our devices will provide a dynamic user experience.

Bill Graff

Senior vice president, Cerner Technology Services, Cerner, Kansas City, Mo.



New titles in your IT organization: We've recently added busi-

ness relationship managers to our staff to serve as liaisons to our peer organizations within the company. **Skills you'll hire for this year:** We have steady demand throughout our entire infrastructure and software development environment, so we're hiring recent graduates and experienced engineers across all specialties. Regardless of their experience, we provide in-depth role-based training for our team.

Shirin Hamid

CTO, United Nations

Development Programme,

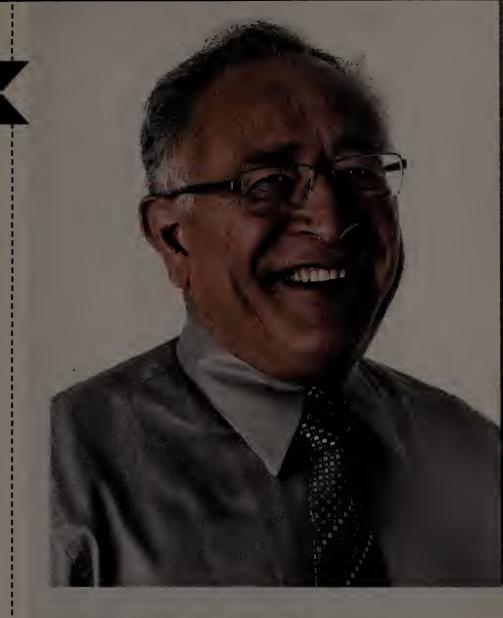
New York



How far along is your organization's journey to the cloud?

UNDP will now move key enterprise services from a private cloud to a public cloud. Those services include email, calendaring, instant messaging, file sharing and storage, as well as online office productivity tools and integrated voice, video and Web conferencing.

Skills you'll hire for this year: Enterprise architect, data architect, portfolio manager and service desk support.



FERNANDO GONZALEZ

Working with business teams, this fashion CIO is preparing for company expansion.

A 50-YEAR VETERAN of the IT workforce, Fernando Gonzalez brings a plethora of experience to his position as CIO at Byer California. Though he started out sorting IBM 5081 cards at night after school, Gonzalez, 66, remains focused on the future and the technology he needs to move his company forward.

To do that, he and his IT staff of 25 develop ideas alongside business teams so they can determine what tools can make an impact in both driving the clothing company's growth and saving money.

"He has a good business knowledge and a good understanding of the technology and where it is going to go, so he can see what's going to happen," says Karan Yaramada, who, as president and CEO of IT services firm Jade Global, has worked with Gonzalez.

He says Gonzalez's ability to run a very lean yet effective and innovative IT shop is impressive.

During his tenure, Gonzalez modernized Byer's ERP system, customizing it to handle the company's processes. He also virtualized servers and implemented a high-definition videoconferencing system that lets users zoom in on product details.

Gonzalez says the IT group's insight into the business is critical, especially now as Byer plans to expand. The family-owned San Francisco-based company designs and manufacturers girls' and women's clothing for retailers but is planning to open its own stores and an e-commerce site. •

- MARY K. PRATT

Doreen L. Griffith

Executive vice president and CIO, Securities
America, La Vista, Neb.



New titles in your IT organization: Enterprise architects

and product architects.

A recent example of your leadership style: I have seasoned professionals on my staff, and they are working with all levels within the organization. My role is to work with my team members so they continue to provide innovative products and first-class support.

Skills you'll hire for this year: Product architects and senior development analysts.

John Hanson

Vice president of corporate systems, Sabre Holdings, Southlake, Texas



A career highlight: At Travelocity, I was tasked with figuring out how to

stop credit card fraud. With the help of talented people, we designed systems and operational processes to create a world-class fraudprevention operation. We severely slowed down the bad guys and saved the company millions of dollars.

Coolest current project:

I'm excited about a process to reframe our conversations with the business to more closely tie them to our critical business priorities.



STUART KIPPELMAN

A series of project successes convinced users that they could trust this hard-charging CIO.

COVANTA ENERGY began focusing on organic growth in 2011, undertaking hundreds of strategic initiatives to increase revenue. Most required the help of IT, and IT served as the driving force behind the success of many of them.

Vice president and CIO Stuart Kippelman helped create a global IT program to integrate, synchronize and then leverage multiple technologies and services to deliver these capabilities. The changes focused on automating the salesforce, delivering digital information to customers and using business intelligence to drive faster decisions.

One of Kippelman's biggest challenges was reshaping a corporate culture that resisted change. "We used to deal with a small subset of municipality customers. Now we've grown our salesforce and have pulled in hundreds to thousands of customers. You just can't scale the manual process."

Kippelman first won over employees with the launch of an automated contracts and proposals system in 2013. The system reduced the contract process from weeks to days. "This one project, because it has touched so many areas and is customer-facing, [has led to] a significant uptick in requests to get new systems in place," he says.

Ben Cabrera, senior director of business systems delivery, says Kippelman brings positive energy to the workplace. "His approachability, sense of humor, and the confidence he brings technically that 'we can do this' permeates through the team," says Cabrera. •

PREMIER IT LEADERS

Sonny A. Hashmi

Deputy CIO. General Services Administration, Washington



example of your leadership style: | canceled all weekly staff

meetings within my organization. Everyone posts their updates on the GSA internal social media groups. I check and ask/answer questions constantly. It has freed up time that is better spent solving business problems.

Skills you'll hire for this year: Agile project managers, modern cloud/open-source developers, business process and change management analysts, and customer liaisons.

Adriana Karaboutis

Vice president and CIO. Dell, Round Rock, Texas



New titles in your IT organization: We have created a Chief Data

Office, led by individuals who report to both the CIO and CMO and are in charge of empowering Dell business leaders to make decisions with best-in-class analytical processes, innovative technologies and common information assets.

A career highlight: I spent six years working in the manufacturing and supply chain business. The best IT training I ever had wasn't working in IT, but working in the business.

Jeffrey C. Johnson

Assistant director, Federal Bureau of Investigation. Washington



A task you've delegated this year: The most important task has

been transforming from an execution (growth) decision governance methodology to an agile prioritized (value) decision-based methodology supporting IT development. Quick ROI project:

Evaluating the production of content in Sentinel, the FBI's electronic case management tool, against the full cost of development has resulted in a nine-month return on investment.

Barbara D. Kissner

Senior vice president and **CIO, International Fidelity** Insurance, Newark, N.J.



A recent example of your leadership style: Before going live with a

new mobile version of our corporate website, I asked the team to bring in a variety of devices to thoroughly test the site. I hosted a pizza party so we could test as a group while having some fun.

Coolest current project: Replacing our old, switch-based phone system with VoIP. This represents a big departure from our current technology and will provide us with faster. easier communications.

Srini Koushik

President and CEO, NTT Innovation Institute, San Mateo, Calif.



New titles in your IT organization: Chief development officer.

How many times have you had to reinvent yourself in your career? At least six times in the past 25 years: researcher, line-of-business leader for a global business, CTO, CIO, entrepreneur and CEO.

A task you've delegated this year: Communications and marketing to my CTO to take advantage of his unique capabilities and the emerging trends around technologyenabled marketing.

Wendy L. Lee

Senior vice president of digital technologies and operations, Kaiser Permanente, Oakland, Calif.



Quick ROI project: We launched the Mobility Center of Excellence

and delivered a dozen mobile apps for our members, workforce and clinicians in less than a year.

A recent innovative staff idea: Imagining Care Anywhere is an interactive experience that explores how healthcare might be transformed in the future by incorporating emerging technologies, strategic partnerships and membercentered services.

Werner E. Kruck

Chief operating officer, Security First Insurance, Ormond Beach, Fla.



Coolest current project: We're developing real-time content vid-

eos to increase engagement with customers, help them better understand coverage and provide them with information that helps them navigate the claims process.

How are you building an IT department for the future?

We are building strong technical partnerships and outsourcing many "as-a-service" IT tasks so we can focus on IT projects that meet company-specific needs.

Mark Lilien

Senior vice president and CIO, Things Remembered, Highland Heights, Ohio



Coolest current project: Because almost everything we sell is

custom-manufactured to our own designs, our 3D printing initiative will enable rapid prototyping in silver and other metals, glass, ceramics and plastics.

How do you evaluate emerging technologies?

We sign test contracts, with one-sided (our decision, not theirs) options for multiyear production at fixed prices, assignable only if price and terms are adopted by any successors.



CHAD LONG

This collaborative IT leader gets creative when seeding the next crop of tech talent.

IF YOU THINK IT'S CHALLENGING to recruit talented IT professionals, consider how hard it might be if you were located in a swamp, an hour from the nearest big city.

That's the situation Chad Long finds himself in as a commander and chief of the information systems division at the U.S. Coast Guard Aviation Logistics Center, which is located at the narrows of the Pasquotank River in Elizabeth City, N.C.

Staffing is a priority for Long, because the logistics center is in the midst of a transition. It's migrating from homegrown software to commercial applications and expanding its use of mobile systems.

Moreover, along with the entire military, the Coast Guard is increasing its systems security. That means Long's IT staffing needs are changing — from .Net experts to IT managers who can guide multiple projects.

And that's a challenge. "We do not have the luxury of access to all kinds of IT talent here, nor do we have a big draw," Long says.

He has partnered with local universities, offering internships and training programs for students. He even set up internships for high school students, focused mostly on lower-level tech skills.

"We bring them in and get them experience," Long says. The interns don't always end up taking jobs at the logistics center, but they do seed the labor market by word of mouth — telling others about opportunities with the Coast Guard.

Carl Webster, deputy chief of the information systems division, says one of Long's greatest attributes is his participative management style. "He's not one who will sit there and dictate," Webster says. "He'll listen to your ideas. It's a collaborative environment." •

- LUCAS MEARIAN



ED MARTINEZ

With swift, nonstop innovation, he helps bring better healthcare to children.

Since coming on board as senior vice president and CIO at Miami Children's Hospital in 2009, he has led a successful initiative to replace the healthcare provider's 41-year-old IT systems, rolled out a telehealth platform that brings healthcare services to economically disadvantaged children beyond the hospital's walls, and overseen the deployment of a mobile app that lets parents choose physicians, engage in videoconferences, and receive diagnoses and follow-up instructions online. Next up: an iPad app for doctors that links to wire-less stethoscopes and blood pressure cuffs that patients use at home.

Martinez is the hospital's lead innovator, says Dr. Jacques Orces, chief medical information officer at Miami Children's. "His enthusiasm and boundless energy creates buy-in for projects," says Orces. "He thinks out of the box, he doesn't follow the traditional paradigms — and it's hard to keep up with him. Ed's not two steps ahead of you. He's a year ahead of you."

Martinez recognizes that convincing others to accept change isn't always easy. "The things we're talking about are game-changers," he says. "They're disruptive and require technical abilities and a change philosophy and thought process that hasn't been accepted in healthcare before."

Getting the board of directors to see IT as an innovator was a challenge that Martinez met by gradually gaining the board's confidence through a series of smaller wins. "We all want to excel because we're dealing with children," he says. "But there's also a level of ego involved. People here want to be the best."

- ROBERT L. MITCHELL

PREMIER 100

Michael Macrie

Vice president and CIO, Land O'Lakes, Shoreview, Minn.



New titles in your IT organization: Executive application

architect, data-to-insights architect and director of IT for mergers and acquisitions.

How many times have you had to reinvent yourself in your career? Three times: from a technologist to a project leader, then to a bigpicture thinker, and then to a relationship-builder.

Boldest IT prediction: Cloud computing and software as a service will radically change IT's role in large companies.

John Marcante

Managing director and CIO, Vanguard, Malvern, Pa.



A career highlight: After 9/11, I was moved to manage Vanguard's

technology operations, at a time of tremendous business growth and heightened business resiliency needs. Our then-CEO tasked me with doubling our production infrastructure while cutting expenses over the next few years. This challenging role served as a launch pad for many opportunities [and] accelerated the development of my leadership abilities, technology skills and business acumen.

Catherine A. Maras

CIO, Bexar County Government, San Antonio, Texas



A career highlight: I have worked in Fortune 100 companies and

local government. I believe that I have a good perspective on how to deliver relevant software to customers. As customers have said, I help to solve their business problems. I enjoy working with my customers, and they know that I will be available to help them meet their business mission.

Coolest current project:
BiblioTech (a digital library),
because it's viewed as
disruptive technology for
the library industry.

Mark T. Masterson

CIO, Arizona Department of Education, Phoenix



Quick ROI project: IT adopted ChangeGear as its IT service man-

agement system, allowing the department to improve its ability to track support requests, reduce response time, measure effectiveness and enhance services. Customers have had fewer dropped calls and enjoy one-call resolution. How are you building an IT department for the future?

Our team employs best-inclass tools to work in concert with an architectural design concept that accounts for tomorrow's technology.

William T. Mayo

Senior director of IT, Global Applications Management, Biogen Idec, Weston, Mass.



To what extent do you embed IT workers in business units? We

are working to enable the IT professionals with business-facing roles to embed them even deeper by centralizing the development and support arms of IT. The expectation is that this will allow us to get even better at the back-end IT work while at the same time allowing the business-facing roles to fully immerse themselves in the details of the operations they support.

Berni D. Mobley

Vice president of IT, SAS, Cary, N.C.



Skills you'll hire for this year:
The ability to communicate,

regardless of one's technical or management role, is absolutely critical for IT to be a trusted, strategic partner to the business.

Key relationship: My relationship with the vice president of marketing is very strong. Traditional approaches to mapping IT resources to marketing priorities weren't satisfying marketing or IT. We've worked to engage IT earlier in the planning stage.



Senior vice president, vice dean and CIO, NYU Langone Medical Center, New York



How many times have you had to reinvent yourself in your

career? Several times, as I moved first from application development to the business side of international banking, and then into healthcare.

A recent example of your leadership style: After the center's power failed during Hurricane Sandy, I joined an all-hands effort to evacuate patients, then established a command center to tackle the massive recovery effort.

Roger L. Neal

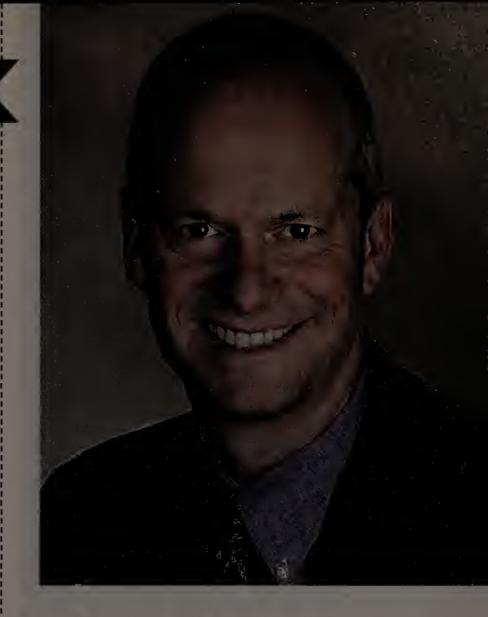
Vice president and CIO, Duncan Regional Hospital, Duncan, Okla.



Skills you'll hire for this year: We are looking for SQL and Web 2.0 de-

velopment skills, plus an understanding of technology's role in the realm of electronic health record integration.

How are you turning your IT department into a services organization? We are transitioning our lead analysts from technical-only knowledge to business knowledge by having them work within business units daily. Knowing the whole business from end to end is beneficial when solving problems on the fly.



RICK MEARS

Aligning IT investments with business goals is this CIO's golden rule.

IN 2011 when Owens & Minor decided to invest \$50 million in IT upgrades over three years, the company established a group of business unit leaders to oversee the spending. That team has since become a core part of CIO Rick Mears' efforts to position the company's IT organization for the future.

Every other week, Mears holds two-hour meetings with "Team CIO" to discuss IT issues and identify opportunities for improving processes through technology. That approach, involving operations-level vice presidents from 10 business units, has served the distributor of medical and surgical supplies well in the past two years, says Mears.

For example, in 2013, the team signed off on a long-term initiative to equip sales representatives with tablet computers that provide real-time access to key customer-specific information, such as sales history and purchase orders. The technology has enabled sales teams to manage customer relationships more efficiently and at considerably lower cost than they could with the company's previous Microsoft Dynamics CRM package, says Mears.

That's an important tool, because each day more than 4,000 hospitals place about 350,000 orders for supplies with Owens & Minor, and the company has to fill those orders within 24 hours.

Mears, 53, is confident that Team CIO will continue to help the company align IT initiatives with business goals.

"The role of the CIO is not to worry about keeping your systems running," he says. "To me, the value of the CIO role is in finding the right places to make investments in technology that will transform your company or your customer experience."

- JAIKUMAR VIJAYAN



ROBERT NORRIS

One of a new breed, this CIO has shown an ability to align innovation and strategy.

ROBERT NORRIS believes companies, including his own, must use technology to differentiate themselves in the marketplace.

"CIOs are moving more to the center of innovation within the enterprise, and CIOs are increasingly driving more growth than ever before," says Norris, vice president of strategic development and CIO at Pinnacol Assurance, a Denver-based provider of workers' compensation insurance.

Lisa Jasper, a consultant who has worked with Pinnacol, says Norris is a good example of this kind of CIO. "(His) thinking is led by business opportunity," she says, and he's "constantly innovating rather than settling for good enough."

Recent IT projects at Pinnacol highlight Norris' ability to align innovation and strategy. For example, IT recently revamped and integrated the company's website and various secure extranet applications to create a unified Web experience and increase mobile accessibility for customers, a move that the company expects will help it attract and retain customers.

IT is also developing more mobile applications for customers and employees, which will create efficiencies while improving services, Norris savs.

Norris, 46, says he works closely with his business colleagues to understand and develop strategic objectives. And he fosters a culture that encourages innovation by enabling collaboration, experimentation, trials and even failures - as long as the goal remains driving the business forward. •

- MARY K. PRATT

PREMIER IT LEADERS 2014

Hortense K. Nelson

Information management, director, program integration, Idaho National Laboratory, Idaho Falls, Idaho



New titles in your IT organization: Vendor relationship manager,

solutions architect, portfolio manager, performance manager, service manager and business engagement manager.

How do you evaluate emerging technologies?

Our architecture team develops conceptual designs based on industry direction and mission strategy, then develops prototypes to demonstrate value to the organization.

David J. O'Brien

Director of enterprise technology, Karl Storz Endoskope, El Segundo, Calif.



How are you building an IT department for the future? Two ways: by

changing how IT is perceived by our business partners and by altering IT's self-perception of its role within the organization. By raising our support levels and delivering on projects and initiatives, we are earning a level of trust and credibility from our business partners. We are now transforming the roles of our IT team members from just service providers to valued business partners.

Anthony Nuzzo

Vice president, chief development officer, Coca-Cola Enterprises, Marietta, Ga.



Skills you'll hire for this year: Expertise in system migration and applica-

tion architecture within and across different cloud infrastructures. My approach to the introduction of new technologies in an organization is to bring in a subject-matter expert to ramp up quickly and cross-train existing talent.

A career highlight: A sitdown meeting with Bill Gates in 2008. Our company chose to move onto Microsoft's collaboration suite in the cloud [and] Gates thanked us.

Pagliarulo

Senior vice president and chief IT operating officer, EMC, Southborough, Mass.



New titles in your IT organization: Cloud architect, business con-

sultant and data scientist. How are you turning your IT department into a services organization? After establishing a fully virtualized and automated infrastructure, we implemented an ITas-a-service operating model to allow business users to consume and pay for IT capabilities as they need them. We have built multiple services that can be "purchased" from our online service catalog.

Pam Parisian

Senior vice president of IT mobility, AT&T Services, Dallas



How are you turning your IT department into a services

organization? Far beyond order-takers, the IT department introduces technologies and applications that greatly improve the customer experience across a cross-section of business units, including retail, online sales and customer service.

How do you evaluate emerging technologies? We opened The Innovation Pipeline (TIP), believed to be the world's largest employee crowdsourcing initiative.

David M. Paschane

Lead scientist, Aplin
Labs, (Former director
of the Office of Strategic
Services, U.S. Department
of Veterans Affairs), Silver
Spring, Md.



How do you evaluate emerging technologies? I rely on the inte-

grated sciences of the Performance Architectural Sciences System (PASS) to judge the value of emerging technologies: Does the technology enable greater motivation, concentration, awareness and discretion in employees, while helping the executive level to be more adept at improving structure?

Earl C. Parks Jr.

Executive director,
Gallaudet Technology
Services, Gallaudet
University, Washington



A career highlight: I believe I may be the first and only deaf CIO in a

higher education setting.

Quick ROI project: After a failure of traditional communication pathways, a process to cull emergency/alternate contact information was initiated. Redundant systems, cloud-based communication platforms, were put in place. An alternate Web presence keeps our community informed when primary systems or channels are offline.

Doris Peek

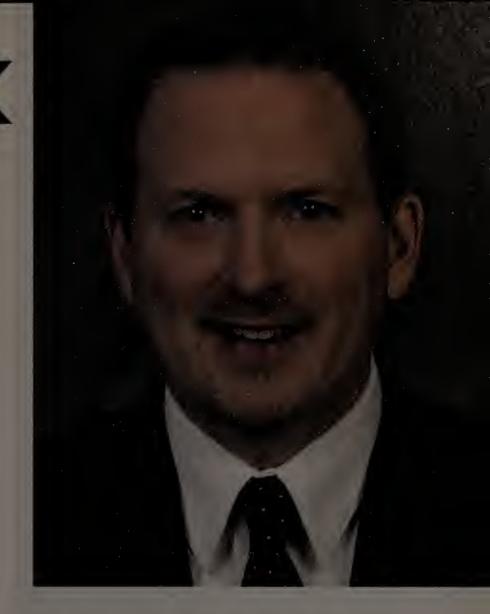
Senior vice president of IT, CIO, Broward Health, Fort Lauderdale, Fla.



How are you turning your IT department into a services orga-

nization? I took a strategic view to focus IT as a services organization rather than being technology-oriented by restructuring the help desk to operate 24/7 with service-level agreements.

Boldest IT prediction: IT will be a knowledge broker. This is already true in healthcare: Technology is important, but supporting processes to turn data into information and then to knowledge will gain importance.



ALAN PAWLAK

The Affordable Care Act presented an opportunity to transform a long-standing business model.

IN 2012, AETNA BEGAN a business transformation in response to changes related to the Affordable Care Act. As part of that initiative, the insurer had to implement individualized platforms to support health exchanges, simplify its products by reducing the degree to which they can be customized, and shift to a low-cost model with a self-service app store.

"That's a big change for a company with a national-account focus and large-scale products and service offerings. Now you're moving to the consumer level," says Alan Pawlak, 46, head of client services at Hartford-based Aetna.

Pawlak had to break the mold of large enterprise-scale license agreements and big systems that the IT department developed inhouse — and change the way his staff thought about technology's role.

He says the IT shop is "moving from telling business units what they need to buy for technology and prescribing what the technology can do" and is "becoming [an integrator] of technology for the business."

Senior engineering manager Dan Okun credits Pawlak with helping IT staffers get beyond the "noise" of change and uncertainty so they could focus on making progress. "He empowers us to deliver and holds us accountable, and he doesn't micromanage," Okun says. "He's just incredible as a leader when it comes to showing great presence in tough situations."

Pawlak is known for telling his staff, "You need to come to work 70% of the time a little afraid and very excited. Being in technology means that you love change: That's what it's all about."

- STACY COLLETT



TIM PLATI

This IT leader found value in engaging with people inside and outside his organization.

TO KEEP A COMPANY MOVING FORWARD, sometimes you have to change its direction. That's been the strategy for Tim Platt, vice president of information systems and information security at Toyota Motor Engineering & Manufacturing North America.

Recognizing a need for Toyota to be more competitive, Platt has overseen his IT department's transition from a reactive role to an active one. Not satisfied with simply implementing and supporting reliable existing systems, Platt's staff now takes the initiative in offering improvements and innovative ideas to other departments.

The necessary training and resources are provided to staff through the IT Antenna program, which Platt has used for his own personal transformation. Coming to the CIO role from a background in IT architecture, Platt says he "recognized there was another part of the world I needed to engage in." He joined a roundtable of Cincinnatiarea CIOs who share benchmarks, best practices and speaking engagements. "I've transformed from a person who was primarily focused internally on IT management processes to someone who is engaged outside of my organization," says Platt.

Connecting with people inside and outside the department makes Platt a leader his staff is enthusiastic to follow. "His ability to visualize complex scenarios and relate to every level of the organization personally is amazing," says Joseph Lucas, manager of IT business planning and management. •

> - KEN GAGNÉ, A FREELANCE WRITER COVERING MACS, RETRO COMPUTING AND ELECTRONIC ENTERTAINMENT (KENGAGNE.COM OR ON TWITTER AT @IDGAGNE)

PREMIER IT LEADERS 2014

Tim Peterson

Executive vice president and CIO, Wellmark, Des Moines, Iowa



New titles in your IT organization: CTO. director of technology

strategy and management, director of strategic technology governance, director of innovation and digital platforms, director of technology portfolio and financial management.

How many times have you had to reinvent yourself in your career? Several. I've had to become a subjectmatter expert in security and data management. My advice would be to own your brand and have a development plan.

Eric Presley

CTO, CareerBuilder.com, Norcross, Ga.



New titles in your IT organization: Data scientist. **Ouick ROI**

project: MySupply allows companies to integrate their private supply data with CareerBuilder.

Boldest IT prediction: The demise of Microsoft Office. How are you building an IT department for the future? By investing in mobile, open-source technologies, dedicated R&D engineers and data scientists.

To what extent do you embed IT workers in business units? We are separate, but closely aligned.

Dan Petion

CIO at large (former CIO at Enterasys Networks). Salem, N.H.



Skills you'll hire for this year: Salesforce.com. particularly Force.com

development. We will probably train from inside due to the high demand for these people in the job market. **Coolest current project:** Implementation of a new community portal (Get Satisfaction). We have a very loyal customer base that is eager to participate when our community is launched.

How do you evaluate emerging technologies? We do a lot of pilots. I deploy to IT first whenever possible.

Rob Pringle

Director of Global IT, **Gazprom Marketing & Trading, London**



New titles in your IT organization: Head of strategic change, a

role that has the mandate to partner with our business to help shape initiatives and manage an integrated team of business analysts and architects.

Boldest IT prediction: That open source will be much more prevalent in mainstream business applications and will threaten the business model of established application vendors that are dependent on traditional license and support gevenue models.

Sukumar Rajagopal

Senior vice president, CIO, head of innovation, Cognizant Technology Solutions, Chennai, Tamil Nadu, India



How have you incorporated social media into your own work?

I have been blogging since
June 2004. We rolled out
blogging at Cognizant in July
2006 — even our CEO blogs
regularly. I am a passionate
advocate of social media. I
joined Twitter in 2007, which
has helped me tremendously
with my social footprint and
improved my effectiveness by
giving me the opportunity to
spot trends very early.

Rob Reynolds

Vice president, rapid software development, Comcast Cable, Philadelphia



A task you've delegated this year: Project updates. It's no longer us

giving the updates — it's the lines of business giving the update. They own it, they're accountable for it, and they know where they are with it.

Quick ROI project: We received a threefold request in December 2012: billing channel harmonization, outage notification and technician ETA (ensure timely arrivals). By the first quarter of 2013, we'd delivered on all three, saving hundreds of millions of dollars in call avoidance.

Venki Rao CIO, GE Digital Energy, Atlanta



New titles in your IT organization: Chief information security offi-

cer, big data analytics leader, user experience leader, social media director and IT compliance leader.

A task you've delegated this year: I asked my CTO to work on data center and server room reduction. By reducing our data centers by 50% and increasing virtualization, we can cut our operational costs by \$8 million per year.

Boldest IT prediction:

Wearable technology such as

iWatches will penetrate the

market in the next few years.

Rick Roy

Senior vice president and CIO, CUNA Mutual Group, Madison, Wis.



How have you incorporated social media into your own

work? We have used Twitter and Google+ to showcase our industry thought leadership and IT industry awards.

A career highlight: One highlight was when I was asked to lead the customer operations transformation for CUNA Mutual Group. We consolidated all call centers, claims processing and policy administration services into one organization. We consolidated 40 customer operations sites into three.



GER PURCELL

Collaboration and employee development are two of this IT leader's priorities.

TECHNOLOGY DISTRIBUTOR AVNET thrives on connecting customers with the technology suppliers and products they need to further their business. Thanks to Ger Purcell, senior vice president of global information solutions, Avnet employees make the connections they need to further their careers.

At Avnet, Purcell, 48, established a "technology day" and job-shadowing program, offering employees the opportunity to learn about new technologies and cross-train with colleagues in other departments. Participants are given the resources to define their career trajectories, resulting in a high level of engagement across the company. "An engaged team gets results," says Purcell.

Purcell is no stranger to collaboration and transformation, having originally studied mechanical engineering before finding his way into client services on a career path that eventually led him to the CIO post at Gateway. There, he reported to Steve Phillips, who as CIO at Avnet is once again Purcell's manager. "He's always been an intuitive, collaborative person," says Phillips. "He's not there just as the IT person. He's an equal partner around the table."

"The days of being just the IT person are rapidly coming to a close," agrees Purcell. An interdisciplinary approach is vital not just across departments, but within his own. "You're only as good as the people on your team. If they don't see you a trusted adviser, you'll not be able to drive an IT strategy that affects the business."

Of both Avnet and its employees, Purcell says, "You have to be self-critical and allow change." ◆

- KEN GAGNÉ



CHRISTINE

By focusing on customer needs, this IT leader helps grow the business.

CHRISTINE SHIMIZU, vice president and CIO for the Intelligence, Information and Services (IIS) division of Raytheon, keeps an eye on the future while focusing on what her company and its clients need today.

"There's a balance between the business imperatives, the market forces and the technology landscape that's pertinent to our customer base and our enterprise IT strategy. We take those pieces together and come up with the road map," says Shimizu, whose staff of 400 serves both Raytheon's IIS employees and its external customers.

Shimizu's leadership has moved IT from "a classic support role into a strategic one," says Todd Probert, vice president of engineering and technology in Raytheon's IIS division. "She has a great business understanding, and she gets customer engagement and the value IT brings to that."

Case in point is the recently completed Cornerstone project, which delivered a collaboration platform to Raytheon employees working in classified environments. The project uses SharePoint, virtual bridges and other tools to enable collaboration - and improve productivity and efficiency – while providing a secure environment.

"Our IT professionals are required to have knowledge of technology, business and how our business works," Shimizu says. "And as IT leaders, our challenge is being the valued partner in growing the business." •

- MARY K. PRATT

PREMIER IT LEADERS 2014

Tony Saldanha

General manager, global business services, Procter & Gamble, Cincinnati



How do you evaluate emerging technologies? It's simple: Prove

the ability to deliver business outcomes in a small way first. The challenge isn't to pick the most powerful, the shiniest or the best, but the one that works for your business.

To what extent do you embed IT workers in business units? This is a core strength of our business model: highly professional client leaders embedded in each unit. They have one success measure: relevance of IT/shared services to their business units.

James R. Staider

Vice president and CTO, **Cook Children's Health Care** System, Fort Worth, Texas



How are you turn-Ing your IT department into a services

organization? We implemented Salesforce.com's Service Cloud within IT and are treating our departments as we would external customers. We strive to interact with each employee as a valued customer and want to earn their repeat business.

A career highlight: I jumped from vice president of strategic planning at two successful Internet startups to the CIO job at a \$600 million hospital.

Rochelle Shaw

Director of health IT program management and financial services division, WellPoint, Portland, Maine



A task you've delegated this year: We had an exceptional amount

of growth in our department over the past year. As a result, I have added many managers to help oversee the day-today operations of the business. It has been very fulfilling to see these individuals take on leadership roles.

A recent innovative staff idea: The staff created a development process that allows our primary customer, CMS, to continually adjust system requirements.

CIO, Cross Country **Home Services.** Fort Lauderdale, Fla.



New titles in your IT organization: UX developer, senior BI

developer, ETL developer, data integration specialist and release management coordinator.

How many times have you had to reinvent yourself in your career? Four. The drivers behind my transformation are the changing opportunities as an IT executive. My roles have spanned from an infrastructure and servicelevel provider to innovation partner and change agent.

Cynthia A. Stoddard

Senior vice president and CIO, NetApp, Sunnyvale, Calif.



How many times have you had to reinvent yourself in your

career? My IT career began in insurance, moved to transportation/logistics, to retail and now high-tech — spanning thousands of technology trends and industry forces.

A task you've delegated this year: Portfolio management was delegated to my direct report, who heads up my Office of the CIO function. This is a critical function, so I delegated to someone with a shared vision for success.

Karen Sullivan

CIO and chief security officer, Publix Employees Federal Credit Union, Lakeland, Fla.



How are you turning your IT department into a services

organization? I created an advisory committee of various knowledge workers throughout the organization to participate in the selection of new products and services I have suggested. I also transferred two persons from the business side to assist the IT department in understanding the business challenges faced by the staff. This allowed our department to be involved in all facets of the business.

Adam Stone

CTO and deputy CIO, Lawrence Berkeley National Laboratory, Berkeley, Calif.



Coolest current project: Publications.lbl.gov will provide a searchable

open archive of our 80 years of scientific contributions. Scientists and the public will be able to read everything from 1939 project reports on the earliest cyclotrons to the full published works of recent Nobelists.

Boldest IT prediction: Networks will be more porous, less controlled and more collaborative, and a new generation of security people will be in place to manage that.

Everett J. Sutherland

Senior vice president and CIO, Commonwealth Financial Network, Waltham, Mass.



How do you evaluate emerging technologies?

the position of director of enterprise technology to help fill what I saw as a void. Aside from keeping an eye on our technology stack and helping to manage major issues, this person spends about 50% of his time looking at emerging technology and trends. He briefs the staff and proposes skunk works-type efforts to evaluate the concepts and determine business value.



DERALD SUE

A customer-service focus turns the business side into IT believers.



IN HIS SEVEN YEARS AT INSIDETRACK, CIO Derald
Sue has led two IT transformations.

The first occurred upon his arrival at the San Francisco-based education company that helps colleges retain and graduate students. At that time, he built centralized IT systems, governance and policies from the ground up.

The second came two years ago, when business units fell in love with software as a service and other do-it-yourself capabilities and began cutting IT out of their plans. "There was a belief that IT was too slow to change and implement things, and users got frustrated," Sue explains. He realized that if the IT department didn't provide a high level of customer service, it would end up completely out of the loop.

First, he took several people from the business side and assigned them to the IT department and trained them. Then he retrained or replaced IT staffers who weren't suited for the new customer-service focus. Next, he focused on finding systems that met the business units' needs quickly. Finally, he shifted away from measuring transactions, such as time-to-resolution and fulfillment of the terms of service-level agreements, and toward measuring business outcomes.

"Our ability to be productive and meet the business needs increased dramatically," says Sue, 37.

"He can break things down and get right to the bottom line in a way that will resonate with the person he's talking to," says Joanna Gummery, director of business systems. "He's very much a leader by example." •

- STACY COLLETT



WILLIAM WALDERS

Users didn't like IT at Walter Reed, until this CIO diagnosed the problems and took action.

WHEN LT. WILLIAM WALDERS took on the CIO post at Walter Reed Army Medical Center almost two years ago, his subordinates knew he was taking on trouble.

The center's IT operation barely worked. Help desk response times, either by phone or at a walk-up window, were measured in hours. Analytical capacity was lacking. The staff viewed IT as a negative.

"We were in a tough place," says Luis Lopez, chief operations officer and deputy CIO.

Walders, whose naval career had begun 17 years earlier at a small naval hospital in Rota, Spain, was taking a big step. At age 36, he was about to take over IT at what is arguably the most important hospital in the military's medical system. But that system also had 14,000 unhappy users. The main source of IT problems was the recent merger of Walter Reed Hospital in Washington with the National Naval Medical Center in Bethesda, Md.

Walders, who believes in "business-driven IT," gathered user requirements and took action. He expanded the help desk from 64 to 110 people, implemented IT Infrastructure Library practices, increased training, upgraded support systems, and reduced wait time to minutes. He also made IT a 24/7 operation. Now, he says, the department is meeting its mission to better support the delivery of healthcare.

Lopez says Walders doesn't rattle easily, isn't standoffish and is "extremely engaged" with people. And now, he adds, the users like IT. •

- PATRICK THIBODEAU

PREMIER IT LEADERS 2014

Manu Tandon

Secretariat CIO. Executive Office of Health and **Human Services; Massa**chusetts HIT coordinator, Commonwealth of Massachusetts, Quincy, Mass.



Skills you'll hire for this year: Mobile computing. enterprise data man-

agement and consumer-facing data dissemination skills, cloud-based infrastructure management skills and organization management skills. Quick ROI project: By leveraging buying power and knowledge gained across multiple projects we were able to save over \$4 million on a cloud-based infrastructure-as-a-service solution.

Tom L. West

Vice president and CIO, **Nova Southeastern** University, Davie, Fla.



A recent innovative staff idea: Making the entire teaching/learning

platform accessible via native apps on mobile devices. **Boldest IT prediction:**

One-gigabit wireless will become a standard.

How are you building an IT department for the future?

Training is key, as is bringing in outside experience. I'm uncompromising when it comes to quality and have trained a significant number of my team in Six Sigma methodology and have certified more than 14 black belts.

Robert Thielmann

Senior vice president and CIO, Janney Montgomery Scott, Philadelphia



How many times have you had to reinvent vourself in your

career? In the financial services industry, I have a unique experience, having worked in the three sides of a broker-dealer. I learned the business on the clearing side with Pershing, then was recruited into the independent side, and am now in a regional wirehouse position.

Coolest current project:

Creating a management dashboard for capital marketsspecific data.

Gary M. Wimberty

Senior vice president and CIO, Express Scripts, St. Louis



Oulck ROI project: The integration of Express Scripts and Medco

into a \$93 billion organization that serves 100 million Americans and brings together the best practices of both organizations to benefit payers and patients by reducing waste and improving health outcomes.

A recent innovative staff Idea: Advancing our mobile technology to enable our patients to make optimal health and pharmacy decisions and reduce costs.



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Source: *Harvey Ad Measurement Study, Computerworld May 10, 2010



ANGELA YOCHEM

Streamlining business processes allows this IT leader to offer more value to customers.

BDP INTERNATIONAL, a company that specializes in shipping sensitive materials, has a history of investing in technology as part of its strategic pian. So when it became clear that the aging system it was using for clients' business processes wasn't as efficient or as cost-effective as it could be, the company's IT leaders knew it was time for a change.

Since joining BDP 11 months ago, Global CIO Angela Yochem has focused on streamlining operations. Optimizing the experience for customers was one of the company's goals, and Yochem, 42, is helping BDP do that by automating the booking process. She is also creating a line of software-as-a-service-based systems for product management and engineering to sell directly to clients, and she adds that she's "building advanced analytics capability for customers, allowing them to run scenarios and better streamline their supply chain."

The SaaS product line benefits both BDP and its clients. It reduces the barrier of adoption for customers because it doesn't require them to add infrastructure, and it cuts costs for BDP.

BDP Chairman and CEO Richard Bolte sees the value in using IT to enhance business. "Companies that are able to project visibility over the business horizon for their clients through digital products and predictive analytics will set the new standard for supply chain insight," he says.

Reflecting on the part she played in bringing change to BDP, Yochem says, "The great thing about this role, which is very exciting and dynamic, is that using technology to enable differentiation is very satisfying." •

- REBECCA LINKE

PREMIER IT LEADERS 2014

CIO and executive general manager, customer care. Service Stream Ltd., Meibourne, Australia



Quick ROI project: My team deployed a platform for field telecom-

munications that is accessible through technicians' mobile devices, enabling 300-plus technicians to handle upward of 8,000 tickets per month. The platform was delivered within nine weeks: however. we were able to achieve ROI within six weeks. In addition, all work is monitored live, strengthening our opportunity to deliver a targeted customer experience.

Wes Wright

Senior vice president and CIO. Seattle Children's Hospital, Seattle



How many times have you had to reinvent yourself in your

career? I've gone from a technology-focused CIO at a 25-bed facility to a larger facility where I engaged with the business of healthcare. Today, I think of myself as a personal leader first. healthcare executive second, CIO third, focusing on improving care across the pediatric continuum. **Boldest prediction for** the future of IT: 3D memory will destroy SSDs as we

Michael A. Wisler

Managing vice president of IT, Capital One Financial, Richmond, Va.



Coolest current project: I am really excited to be a part of transform-

ing our workforce, insourcing software development and elevating engineering in our culture. We are hiring the best software talent, implementing agile, defining career paths and tightening our partnership with the business.

How are you building an IT department for the future? We are grooming tech expertise from the ground up - and attracting talent that is great at software development.

Steven E.

know them.

CIO and vice president, **Owens Corning**, Toiedo, Ohio



How do you evaluate emerging technologies? We built a

team tasked with exploring new technologies that could provide business value for Owens Corning. These technologies are researched and then showcased in our TechnologyOne centers, both in our world headquarters and regionally. Our approach is to display some basic technologies and crowdsource the thinking around potential value. This enables us to gather ideas from all employees.

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please ref-erence job # below:

Software Engineer Positions (Mountaln View, CA) Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl:
#1615.4697: C, C++, STL, & OOP; Python, SQL, &/or Shell Script; data structrs & algorithms; complexity analysis; dynamic progr; design pattern; numerical analysis; scientific program; & probability & statistics.
#1615.7744: backend server dvlpmnt; C or C++; STL; script lang; data analysis lang; data mining lang; machine learning, info retrieval data mining, or natural lang processing; irg-scale data storage; perfor tuning & debug.; & distrib comp workflows.

#1615.5817: C++ or Java; image processing &/or comp vision; graphics; & machine

image processing &/or comp vision; graphics; & machine learning.
#1615.8188: C, C++, & Java; product lifecycle mgmt; implement syst in OO lang using web related protocols & specifications; distrib syst; J2EE; REST APIs & frmwrks; & Hibernate.
#1615.6618: Java &/or Python; C &/or C++; Ig syst sw design & dvlpmnt, incl Linux; OO program; data struct, algorithms, & sw design; database design & SQL; TCP/IP & ntwrk progr; distrib syst; & concurrent program.
#1615.2674: Java; OOP; Irg syst sw design & dvlpmnt; Irg scale debug & monitor; design & develop Irg scale test infrastructure; implement syst tests; Unix; multithread, synchronization & working w/ concurrent systs; & data strctrs & algorithms.
Sales Engineer (Mountain View, CA) #1615.6082: Provide technical expertise in support of the sale of Google products & services. Exp. Incl: design & present tech solutions to meet customer rqmts; mgmt & troubleshoot of cust tech issues; sales eng'g; negotiation of bus rqmts; projmgmt of cust evals; tech partner mgmt; pre-& post-sales account mgmt; web techs; comm & collaboration tech; XML & XML-based stndrds; web appl dvlpmt & Integration; enterprise ntwrkg; & enterprise security techs. Int'l trvl req'd.

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

Software Engineer in Test Positions (Mountain View, CA) Design, develop, modify, and/or test software needed for various Google projects. Exp. incl: #1615.834: Linux OS or Unix

OS; firmware dvlpmnt; syst lvl test; C, C++, & Python; device drivers; sw dvlpmnt or test dvlpmnt & automation; comp arch; board-lvl systbring-up; hardware & sw characterization & perfor measurement: & ntwrkd comp systs. #1615.2357 dvlpmnt & test

automation; design, dvlpmnt, test, & maintain of prodt, syst, or test utilities; test methodologies & tools; C, C++, Java & Python coding; scripting Perl or Shell; UNIX &/or Linux environment; & Internet technologies.

Software Engineer Positions (Mountain View, CA) Design, develop, modify, and/or test software needed for various Google ects. Exp Incl:

#1615.1112: dvlp server-side tech; dvlp. client-side tech; comp platforms; design, implement, test, & maintain subsysts; code base & Implement of modifications to code; agile evelop practices; & Python.

#1615.1741 Java, C, or C++; OOP; Irg syst sw design & dvlpmnt; Unix; data struct; &

#1615.6619 C & C++; scripting lang; machine learning, specifi cally pattern recognition and classification; probability & statistics; statistical &/or numerica program langs; database systs; data analysis; & distrib systs. #1615.585 C++, Java, JScript, &

Python; Irg-scale distrib syst capable of efficiently handling billions of users; machine learning, data mlning, & Al for system opti-mization in irg scale distrib systs numerical optimization; Al on pol lcy search; & Realtime video nmunication systs scalable to ions of users

#1615.1216: C. C++, & Java: machine learning; search & ads quality optimization; Irg-scale data indexing; multithread pro-gram; parallel & distrib. comp; Irg cale distrib syst & distrib data base syst; & web serv & app

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

Software Engineer Positions (Mountain View, CA) Design, develop, modify, and/or test software needed for various Google projects. Exp. incl: #1615.417: Java; HTML; CSS; JScript; AJAX; multithread; design, implement, test, & maint distrib syst; data strctrs & algorithms; & front-end design, dvlpmnt, & deployment. #1615.2409: appl-IvI vulnerability test; code-IvI security auditing; web appl security; C &/or C++ code vulnerabilities; Linux syst security & appl sandboxing; Linux kernel dvlpmnt; web browsers &/or client sw; web security models; & web tech & protocols. #1615.2490: Java; JScript; AJAX; HTML5; CSS3; OO sw design; UI & UX design; & internet security.

net security.
#1615.6447: C++; distrib data process; info retrieval & machine learning; & indexing tech.
#1615.5848: C++; adv algorithms & data stretrs; design & dvlpmnt of lrg-scale OO sys; lrg-scale data process; & info

#1615.3527: C++ &/or Java; OO lang; SQL; Mapreduce; data analysis; & lrg-scale distrib syst. #1615.5541: C++ & Java;

#1615.5541: C++ & Java; machine learning & data mining; info retrieval; web appl dvlp; & Irg-scale search engine dvlp.
#1615.6943: sw dvlpmnt; Java, C++, or C#; OOD; UNIX or LINUX; algorithm deslgn & analysis; & SQL & databases. Test Englneer (Mountaln View, CA) #1615.5563: Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl: C++, C#, or Java; test-driven soft syst design & dvlpmnt for distrib syst; data strctrs & algorithms; database syst implement; sw test frmwrks & arch; best-practices in test-driven sw design; & scalable test syst.

syst. Software Engineer In Test View, CA) Mountain View, CA) #1615.4077: Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl: C & C++; Java or Python; JScript; UNIX & Linux; Java & JScript testing; Test automation; JUnit testing techniques; Integration Test Engines; & Front End testing tools.

Interested candidates send sume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

User Interface Designer (San Francisco, CA) #1615.2388 Design, develop, modify, and/or est software needed for various Google projects. Exp. Incl: Mobile UX Interaction; Local Web Srvc UI Design; Adobe Photoshop & Illustrator; Human Computer Interaction; user interaction design; & location based appl design.

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

Technical Solutions Engineer (Mountain Vlew, CA) #1615.6701: Provide technical and product services for Google Inc. Exp. Incl: C++ & Java; UNIX or Linux systs admin; CPU & GPU; program lang; design & deployment of real-time graphical simulations; design & deployment of complex visualization fmwrks using large datasets; developing search algorithms; multi-threaded srvr-side web appl program; & OO sw design.

Technical Program Manager (Mountain View, CA) #1615.7723: Coordinate regional and global technology programs for Google. Exp. Incl: C & C++ code debug; Unix shell scripting; Unix toolchain; data analysis; op syst dvlpmnt; bug trlage; Source Configuration Mgmt; & proj mgmt.

Technical Analyst (Mountain View, CA) #1615.6210: Provide technical and product services for Google Inc. Exp. Incl: Java; AJAX & HTML; database & web app dvlpmnt; Unix; & distrib syst & multithread.

Technical Solutions Consultant (Mountain View, CA) #1615.2141 Provide technical and product services to Google clients. Exp incl: Mobile, CE, & embedded space; Linux Kernel; device driver APIs; Chipset; & Python or Shell.

embedded space; Linux Kernel; device driver APIs; Chipset; & Python or Shell.

Hardware Engineer (Mountain View, CA) #1615.5287; Design, develop, modify, and/or test hardware needed for various Google projects. Exp incl: reliability prediction tool; SQL script; quality & regulatory compliance modules in Agile; statistical process control, process capability & process capability index; & FMEA, DOE, data & SPC analysis; & American Society for Quality Certification & Six Sigma Green Belt Certification. Int'l trvl req'd. Information Systems Auditor (Mountain View, CA) #1615.7481 Analyze financial and IT data for Google audit functions. Exp incl: SQL; relational & OLAP database struct; data analytics execution on Irg, global datasets; IT Syst Audit or IT security; spreadsheet model, forensic analysis, datasets, probability, & stats; model in R or SAS; OOP & script lang; ETL processes; & CFE certification, fraud compliance or AML. Int'l Trvl Required.

Software Engineer positions (Mountain View, CA) Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl: #1615.6754: JScript; CSS; Java; UI frmwrks; C++, & Python. #1615.5745: C++ & Java; Android dev; data mining; distrib data structs; asynchronous program & multi-thread; designs & solutions for cloud-based storage web svcs; UI design; & Spring dependency injection tool. #1615.4137: Java & JScript; Unix op syst; quality assurance/testing; OO design; data struct& storage tech; algorithm dvlpmnt& implement; UI design & implement; &Irg-scale distrib syst. #1615.4005 Java, HTML, CSS, JScript, & AJAX; Writing multi-thread asynchronous Java & C++ progr using remote procedure calls; Lrg scale perfor & monitoring; Writing & maintaining unit tests; Visualization, graphics, image processing, computational photography, AI, or concurrency; Web applengin'g; & OO sw design.

engin'g; & OO sw design.

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

Software Engineer (San Bruno, CA) #1615.6733: Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl: C, C++, Java. or Python; Irg scale syst; & Unix or Linux.

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residencyrecruitment@black

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

Software Engineer Positions (New York, NY) Design, develop, modify, and/or test software needed for various Google proects. Exp. incl:

#1615.4582: Java Core; JScript, C++, or Python; OOP design & Implement principles; Scripting lang; Testing frmwrks & mocking frmwrks; Version control syst Continuous Integration syst; mgmt and implement of sw dvlpmnt life cycle (SDLC); design & debug of multithread solutions Scalability & distrib syst; perfor optimization; & In-memory grid

#1615.5011: UNIX &/or Linux; C &/or C++; multithread; STL; Irg-scale data indexIng; parallel & distrib comp to process Irg data sets(on the order of terabytes) distrib files syst; luster mgmt syst including multiple datacenters & thousands of srvrs; config of real time monitoring & alerting for distrib syst; & test sw in different lvls

trib syst; & test sw in different IVIs Including unit-testing, Integration-testing, and syst-testing.
#1615.5749: C++, Java, & Python; data strctrs & algorithms; comp platforms & browsers; design, implement, test, & maintain comp syst & code bases. tain comp syst; & code bases.

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software Engineer Positions (Mountain View, CA) Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl: #1615.6173: C & C++; Python, Perl, or Shell; Linux op sys; open-source sw dev; x86 arch & assembly; parallel comp, locking, & synch; & distrib comp env. #1615.6052 C & C++; Python; Irg-scale high-perfor ntwrkg; & embedded sw & real-time systs. #1615.5715 C++ & STL; machine learning; Info retrieval & data mining; natural lang; advan algorithms; & distrib systs. #1615.7940: C, C++, Objective-C, Java, or JScript; mobile appls eng; sys eng; distrib ntwrks; internalization & localization; UI progr & design on mobile & web platforms; sw testing, quality metrics, & arch; & sw debug & perfor analysis.

analysis.
#1615.8369: source ctrl; sw dev; databases & SQL; algorithm design & analysis; OCD & dev; sys design & distrib sys; data analysis & stats; & machine learning & Al.
#1615.6934: Java; distrib sys &/ or distrib databases; comp algorithms; & comp ntwrks.
#1615.6513 C &/or C++; muitithread; STL; Python; SQL; machine learning; & parailel & distrib comp.

distrib comp.
#1615.5861: browsers & comp
platforms; Java; Eclipse or IntelliJ
dvlpmnt tools web standards,
protocols, & Ajax; data structs &
algorithms; prod features or syst
components; design, implement,
test, & maintenance of comp
evets: Ira-scale syst swe design systs; Irg-scale syst swe design & dvlpmnt; & machine learning &

text classification.
#1615.8243: C++ &/or Java;
script lang; databases; op sys;
algorithms & data structures; &
TCP/IP, HTML, & XML.
#1615.7321: C++, Java, &
JScript; perfor optimization; Irgscale machine learning; design of
feult tolerance & recovery methods for distrib systs; & problem &
perfor enalysis of Irg scale distrib
systs.

candidates esume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

Network Engineer (Chicago, IL) #1615.7041: Deploy, design and meintain private data networks. Exp. Incl: field based work In POPs, carrier hotels, data centers or central office envrnmts; rack & stack, install, commissioning & melnt of routers & ntwrk equip; creet reck elevations & install docs for service providers or enterprise networks; IP networks; OTDR, OSA, or BERT; cable dressing & mgmt; AC & DC power instellations; dev & maint of local vendor relationships troubleshoot Transport & Leyer 3 platforms; creete & implement metro DWDM design packages; Leyer 1 Outside Plent Fiber characterization & remediation; & metro design packages. Trvl

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Software Engineer Positions (Kirkland, WA) Design, develop, modify, and/or test software needed for various Google pro-

needed for various Google projects. Exp. incl: #1615.4188 C, C++, or Java; distrib syst; Python; syst admin; comp ntwrk; test & debug code; & algorithms & data struct. #1615.7352: Java; C & C++; UNIX; SQL; algorithm dvlpmnt; web srvng & HTML; design, test, dvlpmnt, & implement large scale syst, using large datasets; scientific & eng'g data analysis; & distrib syst.

distrib syst.
#1615.7680 C++ or Java; Irgscale data process; end-to-end
deslgn, dvlpmnt, & maintain of
Irg-scale, high-perfor distrib srvcs
& appls; multithread & asynchro-

& appls; multithread & asynchro-nous program; unit testing frmworks; source control systs; & dvlpmnt & mgmt of distrib srvcs. #1615.8038: sw dev & debug; complex & multithread algo-rlthms; C++, Java & Python; OO sw design; SQL & database sys; & perfor eval & optimization in distrib sys.

#1615.5466: C++; HTML5; JScript; algorithms; UNIX &/or LINUX; & source control.

#1615.7811: C & C++; Java; SQL; multi-thread; design & implement of the parallel & distrib systs using OO approach to the syst design; & data struct & elgorithms.

rithms.
Software Engineer (Seattle, WA)
#1615.916 DesIgn, develop,
modify, and/or test software
needed for various Google projects. Exp incl: OOP in C++ or
Java; Irg-scale web appl dvlpmnt
in C++ or Java; Irg-scale distrib
syst design, Implement, & optimization; multithread program In
C++ or Java; non-relational database optimization & tuning; & UE
desIgn & accessibility for web
appls.

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please reference job # below:

Software Engineer positions (Seattle, WA) Design, develop, modify, and/or test software needed for various Google pro-

needed for various Google projects. Exp. Incl:
#1615.5833: Research, design, write, & debug code for apps; white research & design docs; C++, Java, &/or Python; GCC & GPD; compiler optimization tech & CPU arch; & debuggers, ntwrkng, sockets, & distrib syst.
#1615.1657: C &/or C++; Python; XML; service oriented distrib syst; distrib file syst; multithread arch; data strctrs & elgonithms; mapreduce; & data compression.

pression.
Software Englneer (Kirkland, WA) #1615.8038: Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl: sw dev & debugg Involving large-scale date structures & processing; complex & multithread algorithms; C++, or Java, or Python; OO sw design; SQL & database sys; & performance evel & optimization in distrib sys.

Interested candidates send resume to: Google Inc., PO Box 26184 San Francisco, CA 94126 Attn: D. Racherla. Please ref-

Software Engineer Positions (New York, NY) Design, develop, modify, and/or test software needed for various Google projects. Exp. Incl: #1615.5853 C++; Java; Python; HTML; Bash; distrib systs; ntwrk protocols; comp arch; data structs & algorithms; OOP; multithread; unit test; & Linux Kernel dylpmnt.

#1615.8143: Java or C++; algo-rithms; distrib systs & cloud-based tech; & SQL &/or NoSQL

databases. #1615.6099: Java or JScript; #1615.6099: Java or JScript; web dvlpmnt; cross-browser dvlpmnt, test, profile, & debug; REST-based web svcs; design, Implement, test, & maintain of modular soft components; modification of existing source code; & identification & refactoring of suboptimal components & comm of changes to key stakeholders.

to key stakeholders.
#1615.1340 Java, C, or C++ on
Linux or other UNIX-based platforms; OO dvlpmnt; Design patterns; Modern program paradigms; Multi-thread & paraliel
program; Modularization; Syst
integration techns; RESTful APIs
& messaging middleware; SQL &
traditional RDBMS; Configuration
mgmt systs; Web eppl dvlpmnt; &
HTML, XML, CSS & JScript.
#1615.2645: Java; algorithms;
dependency Injection frmwrks;
syst Ivl design; scalable components; concurrent comput; &
distrib comput & distrib storage
syst.

Technical Program Manager (New York, NY) #1615.418
Coordinate regional and global technology programs for Google. Exp. Incl: sw dvlpmnt; Internet sw & services; Irg scale distrib systs; & tools & elements of proj mgmt. Software Englineer In Test (New York, NY) #1615.5504 Design, develop, modify, &/or test software needed for vanous Google projects. Exp. Incl: C++, C, Java or Python w/ unit test & dependency injection; refactor, test automation, testable, & modular code; test & maintenance of multi-threeded distrib syst or Irg-scale web syst; test-driven dvlpmnt; & date struct & algorithms in test methodologies & automation.

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Computer Systems Analyst in Portland, OR. Responsible for major computer systems development lifecycle from start to finish, determine functional specifications & requirements for new epplications & enhancements to existing applications in healthcare industry including. Medicaid and Medicare Encounter processing: FACETS application and database w/enalysis and implementation of Claims end Membership solutions; and FACETS HIPAA Gateway (FHG). REQUIRES Associates Degree (U.S. or foreign equivalent) in Computer Science or Computer Information Systems. In addition to degree, must have 5 years of progressively-responsible experience as System Analyst (SA) or Computer Engineer (CE), including: Involvement in complex, cross-departmental projects involving multiple software platforms; knowledge of systems development life cycle; creation of detailed technical design specifications; leading walk-throughs of design documents & providing technical advice to development team; and working with multi-discipline teams. Experience as SA or CE must include 3 years of experience in Healthcare Industry, including: Medicaid end Medicare Encounter processing; experience with FACETS epplication and database including analysis and implementation of Claims and Membership solutions; and experience with FACETS HIPAA Gateway (FHG) with detailed knowledge of HIPAA Electronic Data Interface (EDI) transactions 834, 837, 270, 271, 276 & 277 including proficiency with ETL tools and HIPAA compliance tools. Experience may be concurrent. Fulltime position; 37.5 salary hrs/wk, plus on-call status, and may require hours in excess of standard workweek. Must have proof of legal authority to work in the United States. See complete job description/duties and apply at www.modahealth.com with resume, reference list & cover letter listing your qualification for each requirement. AAP Employer.

Vertex, Inc. in Berwyn, PA, seeks a Sr. Oracle Report Developer to provide technical thought leadership and architectural guidance on the compeny's overall reporting & information delivery infrastructure; deliver new - & provide development expertise supporting existing - accounting, finance & other reports & data views in response to business requirements. Essential duties include delivering information technology expertise to Vertex Business Projects; supporting in-place solutions in technology space, & designing new & alternative solutions, etc. Req.: Bachelor or equivalent in Computer Science, Accounting or related field with more than 10 years of progressively responsible experience in ERP Report Development including: 10 years of experience with BI Publisher development; and 5 years of experience with Oracle Discoverer Development; and 5 years Accounting experience. Alternetive: Master's Degree in the ebove listed fields with not less than 5 years of above mentioned experience. Deep knowledge of table structures within the Oracle eBusiness Suite ERP end CRM epplications; Demonstrable depth of knowledge in PL/SQL design, development and tuning techniques; Experience with other BI/OLAP platforms is a plus (OBIEE, Cognos, MicroStrategy, etc.); Demonstrable ability to articulate design points and underlying architectural elements of Oracle Reports 9i and Discoverer reporting design and development; OBIEE Training highly desired; Oracle BI Suite, Reports, Dashboards, and Repositories; Orecle Certified Professional designation preferred. Fax to Michael Quinn et (610) 251-



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IT careers

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9 (Cha ge of Address) erworld, PO 3500, Northbrook, Ill. HOW WE CHOSE THIS YEAR'S HONOREES

ACH YEAR, Computerworld accepts nominations from across the industry — from vendors, IT users, public relations and marketing professionals, Computerworld readers and past Premier 100 honorees.

Eligible nominees include CIOs, CTOs, senior vice presidents, vice presidents, IT directors and managers from a cross-section of user and vendor companies and their IT divisions, including but not limited to professionals in network management, database management, Web management, help desk operations, application development, project manage-

ment, contract management and procurement.

Nominations for the 2014 list were collected from February through September 2013, and more than 1,000 were submitted.

Our editors then invited the nominees to complete a comprehensive management/leadership questionnaire online from July through October. The candidates were asked about a range of topics, including their backgrounds, work experiences, special accomplishments, leadership styles, technology priorities and strategies, and other details about the IT environments they have fostered at their organizations. We received more than 200 complete, qualified questionnaires.

Nominated individuals were asked to provide three references each: one from a direct manager, one from a direct report and one from a professional acquaintance. *Computerworld*'s editors contacted the references for each finalist, and the references' responses were incorporated into the evaluations of the nominees.

Using Computerworld's IT Leader Index, which measures how closely an individual matches our definition of an IT leader, a panel of Computerworld editors and outside judges evaluated the completed questionnaires. Judges reviewed only those nominees who work in industries other than their own.

We define an IT leader as someone who guides the effective use of information technology to improve his organization's business performance. Our definition of an IT leader also includes the following characteristics:

- Promotes an IT vision that supports the company strategy.
- Thinks beyond short-term tactical needs to long-term strategic goals.
- Understands business needs and profit/loss responsibilities beyond the IT department.
- Ties technology and innovation to specific business needs and goals.
 - Uses technology to help his organization gain an advantage over its competitors.
 - Takes calculated risks but has contingency plans in place.
 - Learns from failure and uses such experiences to improve IT processes and products.
- Hires inquisitive people who like to explore and are innovative.
- Creates work environments that are positive and rewarding to employees both inside and outside of work.
- Encourages staffers to be innovative and come up with ideas.

The honorees appear in this issue in alphabetical order, with information that was provided in their questionnaires. •

— Ellen Fanning and Mari Keefe

THE JUDGES

Special thanks go to our 10 judges, all of them past Premier
 100 IT Leader honorees, who helped evaluate this year's candidates.

Judith L. Batenburg, vice president, IT infrastructure and operations, Starz Entertainment (2013)

Brandon W. Brown, ClO. Trident

Marketing (2013)

Andy H.W. Chun, CIO, City
University of Hong Kong (2013)

Blake K. Holman, senior vice
president and CIO, Ryan LLC (2013)

Warren Kudman, vice president
and CIO, Sealed Air Corp. (2013)

Marco S. Orellana, CIO and chief
security officer, Codelco (2013)

Brian S. Rice, senior vice president
and CIO, Kellogg Co. (2013)

Kathleen M. Scheirman, senior vice president, IT, corporate services business information officer, Kaiser Permanente (2013)

Pradip Sitaram, senior vice president and CIO, Enterprise Community Partners (2013)

Michael J. Sylvester II, assistant director and department CIO, Los Angeles County Department of Public Social Services (2013)



PREMIER 100

SCOT FINNIE

Career Doors Open Wide Everywhere for IT Pros

Carve out a goal that you can attain, and if you get 80% to 90% of the way there, call it success.

MBRACE CHANGE. That seems to be the motto of many of this year's Premier 100 honorees. The frozen barriers that once kept IT professionals within the confines of the data center are thawing. For IT workers at many organizations, there's no longer a linear career

path to a senior position. The trick is to not shy away from novel experiences, even if you lack demonstrated ability in a new role. Immerse yourself and get up to speed.

A common thread for the 100 men and women who will be honored at the *Computerworld*Premier 100 IT Leadership Conference in Tucson next week is that they've jumped from department to department — gathering business acumen at each stop.

"Every few years, most of these IT and business standouts have taken on new and often radically different challenges on their paths to leadership roles," writes Julia King in our cover story, "Reinvention Convention" (page 14).

Because technology touches so many aspects of most organizations, an IT background can be an advantage, a steppingstone to other areas of your business. To advance, look at change as an opportunity to grow. Sure, change means stepping out of your comfort zone, but you'll likely be glad you altered your career mindset.

Once you become known as an able business chameleon, you'll have a good shot at being offered new opportunities. What's more, there's no better training to be a CIO — if that's even your goal — than to work in many areas of business.

Understanding the business goals of different branches of an organization is the most important nontechnical skill a senior IT leader can master.

If you follow this kind of career path, look for experienced mentors to help you along the way. Many of this year's Premier 100 honorees talk about leaning on experts around them. Bring your

knowledge of process and technology with you, but learn from those already on the ground.

To succeed on this career path, you also must have wins along the way. Don't tilt at windmills. Carve out a goal that you can attain, and if you get 80% to 90% of the way there, call it success.

More than anything else, this kind of career is about learning. Some of us find it thrilling to climb a steep learning curve. Ten years ago, being a good IT pro often meant pursuing ongoing training and being able to keep up with the rapid pace of technological advancement (and it's not like that's going away).

If you're someone who likes that fast pace, you may be able to take on other kinds of challenges more easily than you think.

The traditional IT roles are changing. You know the reasons as well as I do: trends like BYOD and 24/7 employee productivity, cloud computing and virtualization, the pervasive use of technology in business, and the deep recession, which placed an even greater emphasis on a revenue-based return on investment. For the past several years, Computerworld has brought you information about intrepid IT people who have figured out how to generate revenue, about business units setting up shadow IT operations and about the transformation of the CIO role.

This is something a little different: Today's emerging IT leaders are taking advantage of these trends by parachuting their technology skills into business settings, solving problems and scoring wins. Some of your colleagues are having great success with this strategy. Why not you, too? •

Scot Finnie is Computerworld's

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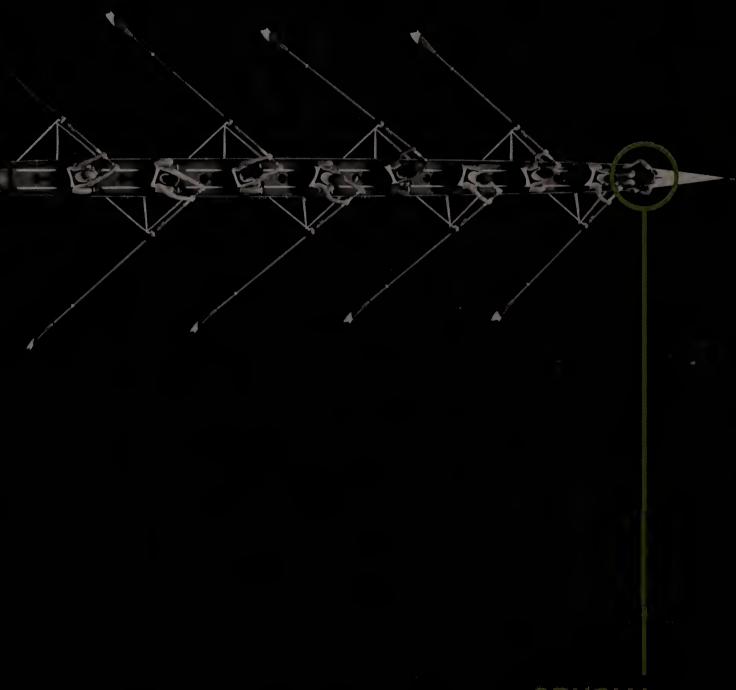
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